





VLF/LF PROPAGATION MEASUREMENTS OVER LONG PATHS ON BOARD A HIGH-SPEED AIRCRAFT

Mr. Wayne Bonser Lt Anthony J. Mlinar, USAF

RADC-TM-76-16 February 1977

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LAURENCE W. DOUBLEDAY

Chief, Communications Transmission Branch Communications and Control Division

APPROVED:

FRED I. DIAMOND

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This report describes the flights and data collected on paths from Griffiss AFB NY to Mildenhall, England, and return; Griffiss AFB to March AFB CA then to Eielson AFB, Alaska, and return to Griffiss AFB; and a round-robin flight from Griffiss AFB to the area around and over Silver Creek, Nebraska, and return. The frequencies monitored were: 34.5 kHz Silver Creek; 36 kHZ Forestport, NY; 37.2 kHz Hawes, CA; 60 kHz WWVB, Boulder, Colorado; and 19.6 kHz - GBZ - Criggion, England.

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GLOSSARY OF ABBREVIATIONS

AFB Air Force Base

CO Colorado

CW Carrier Wave

dB Decibels

FSK Frequency Shift Keyed

GBZ Criggion England transmission call letters

Hz Hertz

K, k thousand

kHz thousand hertz

Km kilometers

mv/m millivolts per meter

NXX.XX North Latitude

RAF Royal Air Force (Brittain)

VLF/LF Very Low Frequency/Low Frequency

WXXX.XX West Longitude

WWVB National Bureau of Standards call letters

Z Zulu-time

INTRODUCTION

Air Force and Navy Very Low Frequency and Low Frequency (VLF/LF) communications assets are an important segment of the Department of Defense's Minimum Essential Emergency Communication Network (MEECN). The maintenance of reliable VLF/LF communications from the CONUS to the North, East and West requires knowledge of radio transmission amplitude and phase characteristics together with atmospheric noise levels and time distribution. Since reliable and up-to-date measurements of these properties have been sparse, both Services have augmented the available propagation data with sophisticated mathematical prediction models.

Sufficient geophysical propagation data has been accumulated to substantiate the accuracy of these models in the temperate regions. Unfortunately, data in other regions (Northern Area, Atlantic, Pacific) was non-existent, and the validity of predictions in these areas is dubious at best. In order to obtain measurements to validate the prediction models, the Defense Communications Agency organized the Tri Service Propagation Measurement Program.

One portion of this program is the gathering of geophysical parameters of VLF/LF transverse magnetic waves measured at high altitude. This wasaccomplished by the use of an RADC KC-135 aircraft. Since the primary importance of VLF/LF communications is message transmission over great distances, propagation data at points far from the transmission site are of the greatest importance.

Reception distances of VLF/LF transmissions, on board the KC-135 aircraft, have been severely restricted by electromagnetic interference generated by the aircraft's equipment. This interference has prevented the accurate measurement of propagation data at distances greater than 1000 miles when using the aircraft's omnidirectional antenna. With the use of a directional loop antenna mounted on the aircraft's boom, reception distances of up to 6000 miles have been attained. The restriction of directionality prevents measurements along paths which are of great importance to the MEECN. The reduction of aircraft interference for VLF/LF reception is of paramount importance to the Air Force and the success of this segment of the Tri Service Propagation Program.

This report describes the flights made during the period from 18 May until 6 June 1975. The report also discusses the data collection technique, its limitations, and its capabilities. The data has been plotted, and detailed explanations accompany the plots.

EQUIPMENT CONFIGURATION

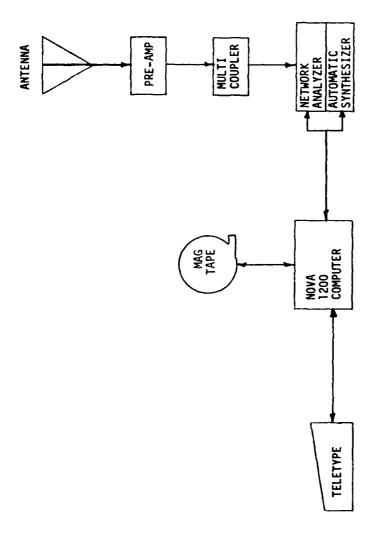
The Air Force's receive system on board the RADC KC-135 air-craft consists of a computer controlled Network Analyzer which is narrowband and automatically tunable.

The computer is a Data General Nova 1200 with 24K of memory.

The Network Analyzer System is a Hewlett-Packard Model 3040 comprised of a 3570A Network Analyzer and a B330B Automatic Synthesizer.

The input and output devices are a teletype and magnetic tape transport. (See Figure 1)

The crossed-loop antenna is attached to the boom of the aircraft (See Figure 2) and has one vertical loop for transverse and magnetic wave reception. The vertical loop is $\underline{36}$ inches in diameter, consists of 40 turns and is parallel to the aircraft body.



EQUIPMENT CONFIGURATION

FIGURE 1

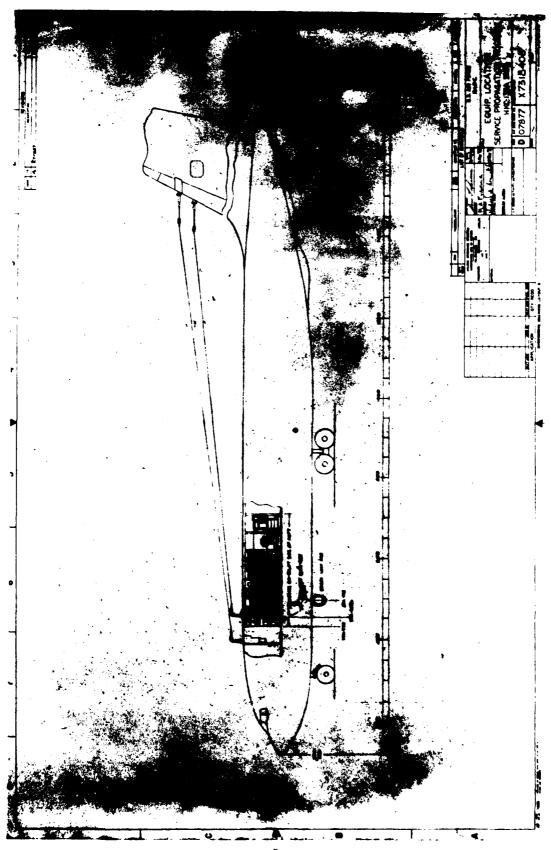


FIGURE 2

DATA COLLECTION TECHNIQUE

The data collection program allows up to 15 frequencies to be monitored at one time (on a time-shared basis). The program takes a 200 Hz spectrum at each of the monitored frequencies. The spectrum ranges \pm 100 Hz from center frequency. Measurements are taken at 5 Hz intervals across the desired spectrum (41 discrete frequencies). At each of the discrete frequencies, 250 measurement samples are averaged to reduce the effects of impulsive noise. The averaging establishes the Frequency Power Spectrum of a modulated transmission from the instantaneous values collected in the time domain.

During post-flight data reduction, the Frequency Power Spectra are scrutinized and compared with known transmission spectra to determine whether or not a transmitted signal is present or buried in noise.

Frequency Power Spectrum histograms, of the recorded sites, enable the plotting of the specific frequency in the Spectrum with the highest known average amplitude, to display Amplitude versus Distance curves (i.e. 34.525 kHz - Silver Creek's upper shift frequency). Silver Creek transmits a Frequency Shift Keyed (FSK) idling pattern. The pattern consists of the letters R&Y. This pattern has the upper shift frequency transmitted more times than the lower shift frequency per R-Y set. Since more energy can be seen on the upper shift frequency in the spectrum plots (see Figure 19A), this frequency is chosen for the amplitude versus distance curves. Similarly, 37225 Hz is used to track the Hawes FSK transmission.

Presently, the average noise value is determined by averaging two of the measurements within the recorded spectrum. The choice of these two frequencies is made by examination of representative spectra to determine which frequencies are least effected by the transmitted signal. A side effect of this technique is the apparent increase in noise level as the aircraft approaches the transmitting site. The field strength of the transmitted signal's sidebands increases above the average noise level and adversely affects the two chosen representative noise frequencies. The computer program is currently being modified to measure the noise hundreds of hertz off the monitored frequency. Hence, any increase in sidebands as the transmitter site is neared will have no effect at all upon the measured noise values.

The antenna on the aircraft's boom is directional and favors reception in the same direction as the aircraft. Therefore, changes in orientation of the aircraft with respect to the transmitting antenna, produce fluctuations in the field strength measurements.

The data points used to construct the amplitude versus distance curves are documented in the Appendix. NOTE: Ø dB is equivalent to 408 mv/m
@ 30 kHz on the Air Force Receive System.

FLIGHT DATA

On 18 May 1975, a flight was made from Griffiss AFB toward Mildenhall. England. The flight duration was 2213 Zulu (Z) to 0511Z (19 May). Three frequencies were monitored during this flight; 34.5 kHz (Silver Creek), 36 kHz (Forestport), and 37.2 kHz (Hawes). In Figure 3, the amplitude of the FSK transmission from Silver Creek drops off 24 dB as the aircraft leaves the CONUS. Figure 4 shows the amplitude of the 36 kHz transmission increase as the aircraft flies past the Forestport Site and then decrease as it travels out to sea. An amplitude null can be seen at approximately W45.59 latitude and W63.53 longitude. Figure 5 shows the gradual decrease in amplitude of the Hawes FSK transmission. As the aircraft flew further from the US, the Hawes transmission was low in amplitude and flight personnel reset the computer program to monitor the 19.6 kHz (Criggion, England) FSK transmission rather than 37.2 kHz (Hawes). This ended the data for Figures 3,4, and 5. Figures 6,7, and 8 pick up where the 18 May curves leave off (0028Z-0031Z on 19 May). During the early hours of 19 May, weather conditions started to deteriorate and the RAF Base in Mildenhall, England, stated that conditions were unsuitable for landing. The aircraft was turned back to Griffiss AFB at approximately N51.59 latitude and W39.58 longitude (0142Z).

The amplitude fluctuations seen on the latter part of the 18-19 May flight are probably the effects of the directionality of the antenna and the changing aircraft orientation with weather conditions.

Figure 8 shows a null on 19.6 kHz at approximately N50.13 latitude, W49° longitude. The same null can be seen on later flights (i.e. 21 May, Figure #9).

On 21 May, another flight to Mildenhall was attempted and this time weather conditions were suitable for landing. The data for this flight was partitioned into two segments because of errors on the magnetic tape. Three frequencies were monitored: 19.6 kHz (Criggion, England); 34.5 kHz (Silver Creek); and 36 kHz (Forestport, carrier wave (CW) transmission). The duration of the flight was 2229Z to 0508Z (22 May).

Figure 9 shows 19.6 kHz having two nulls along the path from Griffiss AFB to Mildenhall, England. One null is located at N49.43 latitude, W47° longitude (similar to the null seen in Figure 8) and the other at N52.55 latitude, W15° longitude. The amplitude of the sidebands of 19.6 kHz can be seen to to affect the average noise level curve as the aircraft approaches the transmitting site. Figure 9A displays the frequency power spectrum of 19.6 kHz. Figure 10 displays two null points on the amplitude curve for 34.5 kHz (Silver Creek); one at N49.23 latitude and W47° longitude, the other at N52.18 latitude and W19.12 longitude. Figure 11 shows 36 kHz decreasing in amplitude as the aircraft heads east. The increase in amplitude as the aircraft approaches Europe is not the transmission from Forestport, New York, but a CW transmission which originates somewhere in Europe. RADC personnel are still investigating the source of this signal.

On 23 May, the aircraft returned to Griffiss AFB from Mildenhall. The duration of this flight was 1744Z to 0047Z (24 May). Four frequencies were monitored during this flight. First 19.6 kHz (Criggion, England); 34.5 kHz (Silver Creek) and 36 kHz (European transmission), and then flight personnel switched frequencies to 19.6 kHz, 34.5 kHz and 37.2 kHz (Hawes) for the

remainder of the return flight. Figures 12 and 13 show the points where the plots were pieced together in order to display the entire flight data on each of the frequencies.

Figure 12 displays a null on 19.6 kHz at N52.32 latitude and W10.26 longitude and at N44.21 latitude, W69° longitude. Figure 13 shows a null in the amplitude on 34.5 kHz at approximately N52.00° latitude and W54.00° longitude. This null corresponds to the null seen on the 21 May flight. From 1950Z until 2100Z on 23 May at 34.5 kHz, the average noise level increased for no explainable reason. Figure 14 for 36 kHz (European origin) displays similar noise effects. Since 36 kHz seemed to be at the same amplitude value as the noise, flight personnel reset the computer program to monitor 37.2 kHz. Figure 15 does not display anything important except that reception of the Hawes transmission is possible at these distances.

From 2 June through 4 June 1975, the KC135 aircraft flew from Griffiss AFB to March AFB, then to Eielson AFB and then returned to Griffiss. The frequencies monitored during these flights were 34.5 kHz, 37.2 kHz and 60 kHz.

The June 2nd flight path was from Griffiss AFB to March AFB. The duration of the flight was 1424Z to 1920Z. The aircraft flew directly over the Silver Creek transmitting antenna (Silver Creek, Nebraska). The amplitude versus distance curves and corresponding noise levels for the June 2nd flight are displayed in Figures 16 through 18.

Figure 16 shows the amplitude change as the aircraft passed over the Silver Creek transmitter. This curve also demonstrates how the amplitude of the entire spectrum rises as the transmitter is approached, by observing the noise values as they are affected by the increasing amplitude of the sidebands.

Two nulls are also displayed in Figure 16. A null appears as the transmitter is approached at N43.01, W82.14 and the second null is seen as the aircraft travels away from the transmitter at N36.25, W110.38.

Figure 17 displays the amplitude and noise values of the Hawes (37.2 kHz) transmission and the rise in noise values as the transmitter is approached. Three nulls can be seen in this figure, one at N42.59 latitude, W79.59 longitude, the others at N40.20, W101.48 and N36.42, W110.38.

Figure 18 displays the amplitude and noise for WWVB, Boulder, Colorado (National Bureau of Standards) on 60 kHz. The large variations in amplitude are due to the characteristics of the amplitude modulated wave. WWVB is amplitude modulated (binarily) and coded to indicate the day and time. Since data is transmitted and is random, the average amplitude constantly changes making determinations of nulls and other characteristics difficult. Figure 18 also shows the rise in noise value caused by the increasing level of the spectral sidebands as the transmitter is approached.

The June 3rd flight path was from March AFB, California to Eielson AFB, Alaska. The duration of the flight was 1715Z to 2249Z. Frequencies 34.5 kHz, 37.2 kHz and 60 kHz were monitored during this flight. Figures 19, 19A, 20 and 21 display the flight data for June 3rd.

Figure 19 specifically displays the upper shift frequency (34525 Hz) transmitted from Silver Creek, Nebraska. The Silver Creek transmitter was off during the first half of the flight. Modulated transmission was resumed at 2038 Zulu. The spectrum shown in Figure 19A confirms that Silver Creek

resumed transmission at 2038Z. Figure 19A displays a typical spectrum plot which is recorded and used for post-flight data reduction.

Figure 20 shows the amplitude and noise characteristics of the 37.2 kHz transmission from Hawes, California. Nulls appear at N37.56, W119.27, N47°, W121.27 and N60.42, W137.47.

Figure 21 displays the amplitude versus distance curve for 60 kHz (Amplitude Modulated) WWVB, Boulder, CO. The amplitude modulation is apparent in Figure 21 and makes the detection of nulls most difficult. Moreover, the data is not reliable since the aircraft's flight path had oriented the directional antenna to a position unfavorable to reception.

The June 4th flight was from Eielson AFB, Alaska, directly to and over the Silver Creek transmitting site and then to Griffiss AFB, NY. Figures 22, 23, and 24 display the amplitude and noise data for 37.5 kHz, 37.2 kHz, and 60 kHz, respectively. The flight duration was from 1905Z, June 4 to 0159Z, June 5.

Figure 22 displays Silver Creek's amplitude curve. Nulls appear at N60, W129.50 and N49.33, W110.28. It should be noted that the noise level increased by approximately 20 dB during the last three hours of the flight. This may have been caused by severe weather east of the Mississippi.

Figure 23 displays the amplitude and noise curves for the Hawes 37.2 kHz transmission. During 2220Z to 2350Z, the amplitude of the received transmission decreased twice by about 25 dB. The transmission logs at the Hawes site show no record of any changes to the power level for these times.

Operational personnel at Hawes have stated that bad weather and high winds

might have caused the fluctuations. The noise level can be seen to rise towards the end of the flight.

Figure 24 displays the amplitude and noise curves for WWVB, Boulder, Colorado. This figure also shows the increase in noise that occurred on the 4 June flight.

On 6 Jun 75, a flight from Griffiss AFB to the Silver Creek transmitting site and then returning to Griffiss was performed. Four frequencies were monitored during this flight: 34.5 kHz, 36 kHz, 37.2 kHz and 60 kHz. Amplitude versus distance curves for the respective frequencies are displayed in Figures 25 through 28.

Figure 25 shows the null in the amplitude of 34.5 kHz as the transmitting site is approached and the dip at N41.24 latitude and W98.06 longitude when the aircraft turned around and came back over the transmitting site toward Griffiss AFB. The null can again be seen as the aircraft travels from Silver Creek to Griffiss. Note the effect of the signal's interfering with the noise frequencies when the transmitting site is near. The amplitude fluctuations in the first 25 minutes of the flight are the result of flying in a circular pattern to measure the antenna's pattern. Similar effects can be noticed on all the 6 June plots.

Figure 26 displays the recorded amplitude variations of the Forestport transmitted signal as the aircraft flew a circular pattern and then flew out to Silver Creek, turned around and returned to Griffiss AFB. Two nulls can be seen as the aircraft approached and returned from the Silver Creek transmission site (N41.51, W90.57 and N41.42, W92.00). The Forestport

transmitter (36.0 kHz) was shut down at 1944Z as shown in Figure 26.

Figure 27 displays the Hawes transmission as the aircraft flew toward Silver Creek, turned and returned to Griffiss. The sharp null displayed in the center of the graph marks the point of the aircraft's turn to return to New York. This null is caused as the aircraft rotates the directional loop antenna through positions unfavorable to reception. Two nulls can be seen in Figure 27, one at N42.48, W80.01 as the aircraft was westbound and the other at N42.02, W82.07 after the aircraft turned eastward.

Figure 28 displays the amplitude (modulated) versus distance curve for WWVB from Boulder, CO. Three nulls can be seen in this figure. The sharp null in the center of the graph shows the point at which the aircraft turned back toward Griffiss. The other two nulls occurred at N41.51, W90.57 and N41.40, W92 (one Westbound and one Eastbound).

The following data documents the distances at which amplitude nulls were seen for each of the frequencies monitored during the 18 May to 6 June flights. Some of these nulls may have been caused by weather conditions or antenna orientation. Many of the nulls are caused by the wavequide effect of the earth and the ionosphere and have been validated by multiple recordings and multiple flights.

CRIGGION	ENGLA	ND 19.6	5 kHz	Amplitude	Nul	ls
	miles miles					May May
	miles miles					May May
2957	miles	(4758	Km)		19	May
Silver C	reek	34.5	5 kHz	Amplitude	Nul	lls
801 836 780	miles miles miles miles miles	(1290 (1347 (1255	Km) Km) Km)		2 4 6	Jun Jun Jun Jun Jun
1548	miles	(2491	Km)		18	May
1800 1846	miles miles	(2896 (2 97 0	Km) Km)			May May
	miles miles					May May
2478	miles	(3988	Km)		21	May
3077	miles	(4951	Km)		23	May
3605	miles	(5802	Km)		21	May
Fores tpoi	rt	36 I	кНz	Amplitude	Nul	lls
577	miles	(929	Km)		18	May
	miles miles					Jun Jun

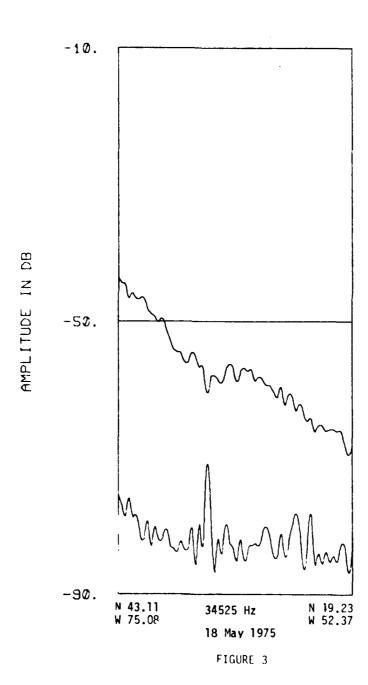
Hawes	37.2 kHz	Amplitude Nulls
398 miles (641 Km) 236 miles (380 Km)		2 Jun 3 Jun
984 miles (1583 Km) 862 miles (1387 Km)		2 Jun 3 Jun
2069 miles (3330 Km) 2001 miles (3220 Km) 1957 miles (3150 Km) 2067 miles (3326 Km)		2 Jun 3 Jun 6 Jun 6 Jun
WWVB Boulder, Colorado	60 kHz	Amplitude Nulls
724 miles (1165 Km) 779 miles (1253 Km)		6 Jun 6 Jun

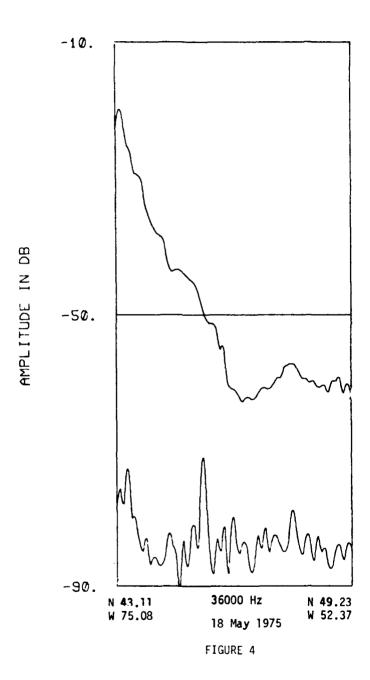
SUMMARY

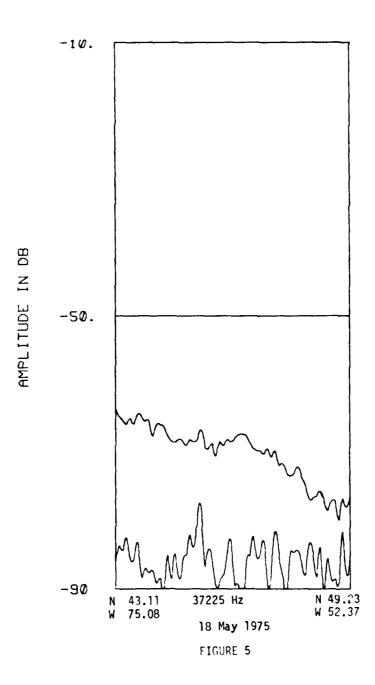
Collection of VLF/LF propagation data in the northern sections of the western hemisphere, for the spring season, was successfully accomplished. Data collection was limited to radial paths to and from transmitting sites, when aircraft-generated interference precluded the use of the omnidirectional antenna and the directional antenna on the boom was used instead.

An investigation of the aircraft-generated VLF interference is being conducted and possible means to eliminate the interference and/or obtain omnidirectional reception with a receive antenna on the aircraft's boom is being studied. Until an effective means to eliminate or reduce the effects of the interference is found, or until we can augment the present system with an omnidirectional receive antenna, propagation measurements will continue to be made on radial flight paths.

paths and obtain the needed data to complete a seasonal account for an entire year. Other paths were also planned to expand the area for which we can compare real-world data to existing propagation model predictions. It is expected that enough seasonal data will be collected to permit a thorough analysis of existing VLF/LF propagation prediction models. The Armed Services will then be able to determine the reliability of the VLF/LF predictions, in these areas, and possibly make improvements.







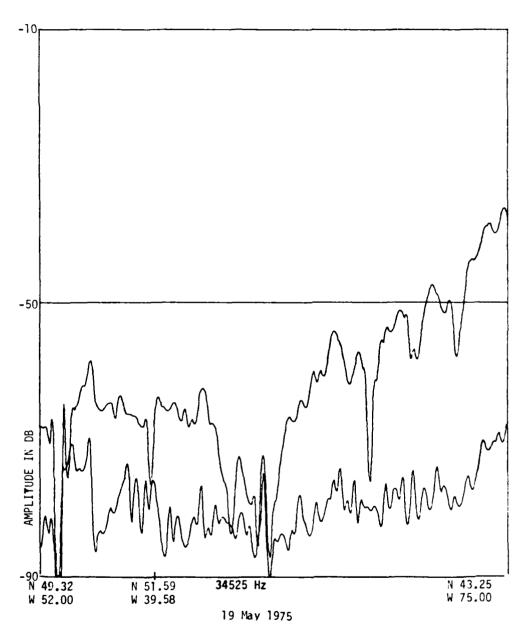
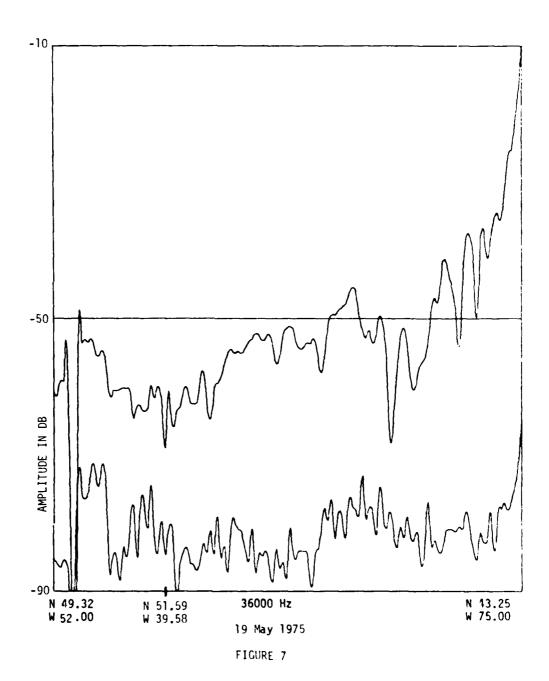


FIGURE 6



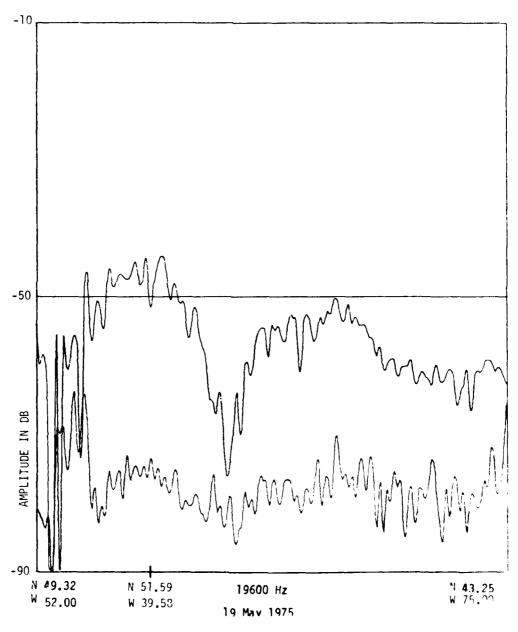
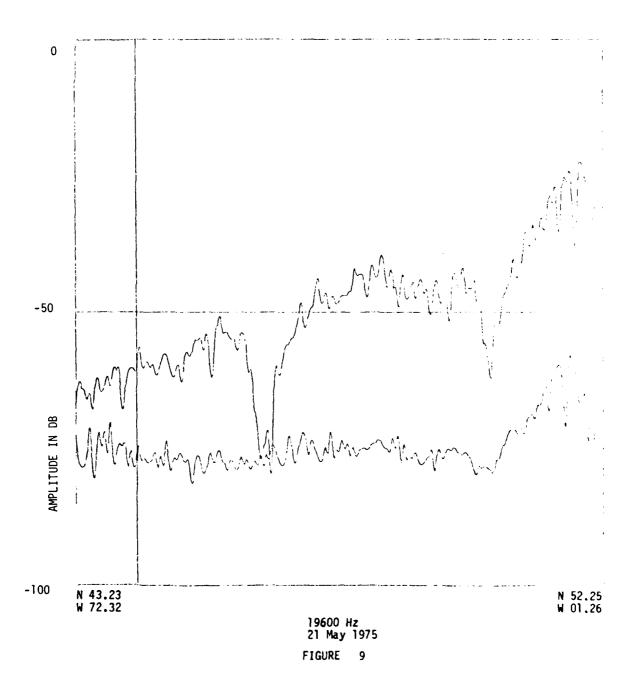
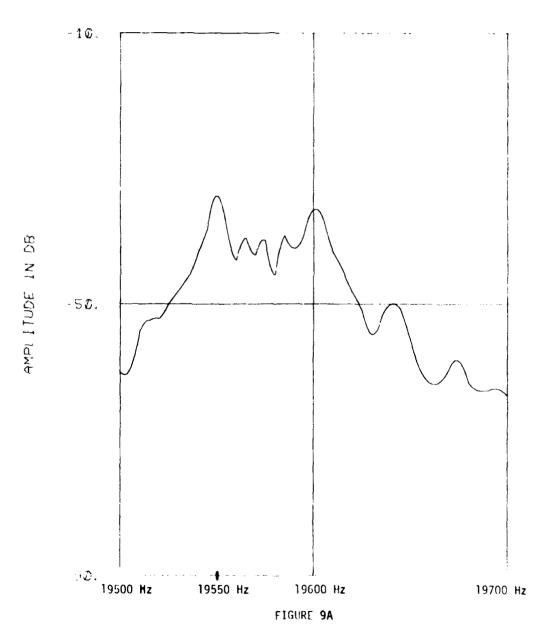


FIGURE 8





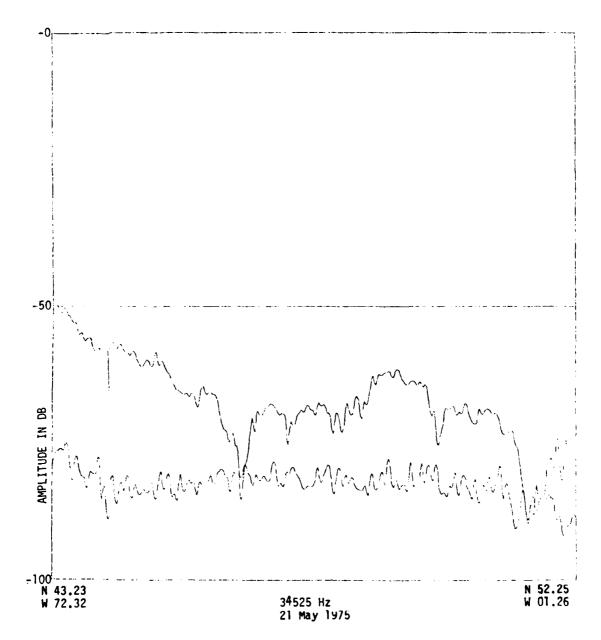


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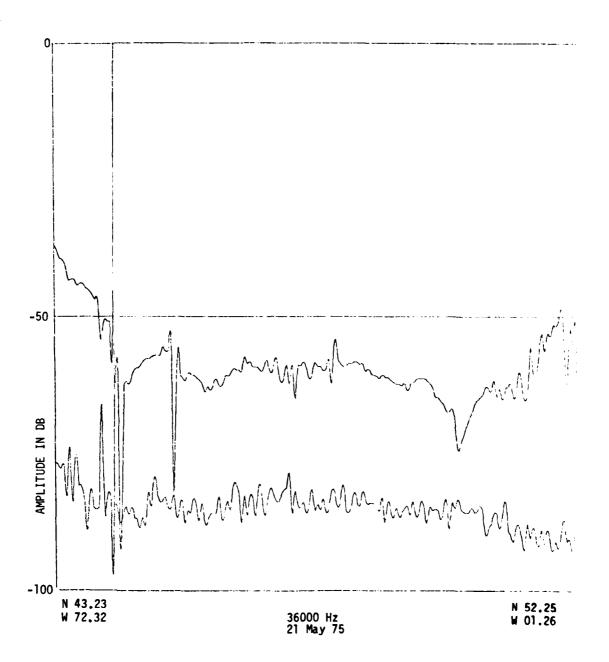
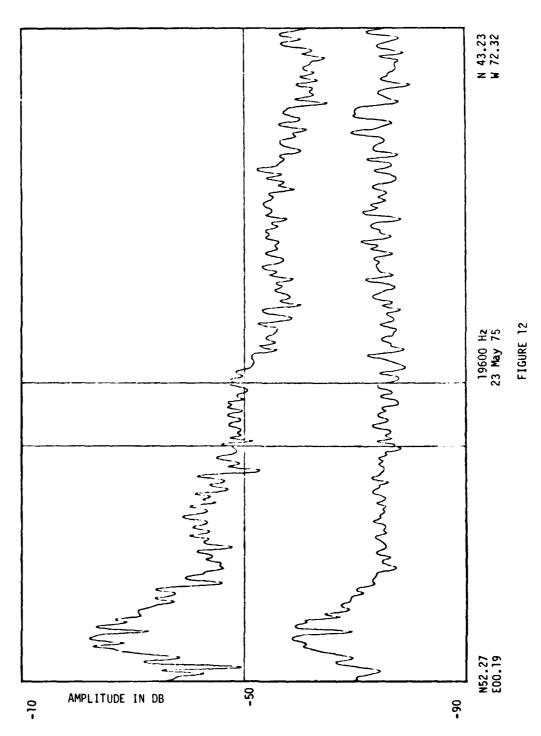
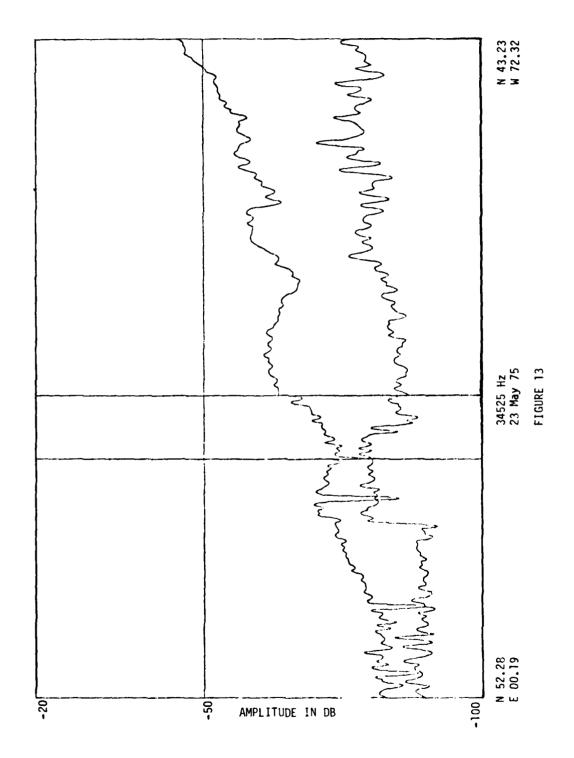


FIGURE 11





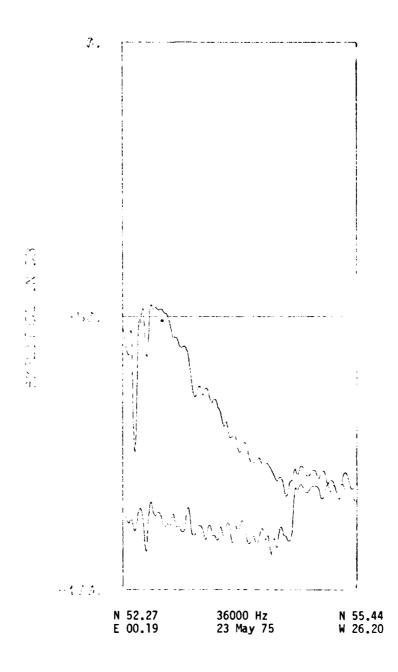


FIGURE 14

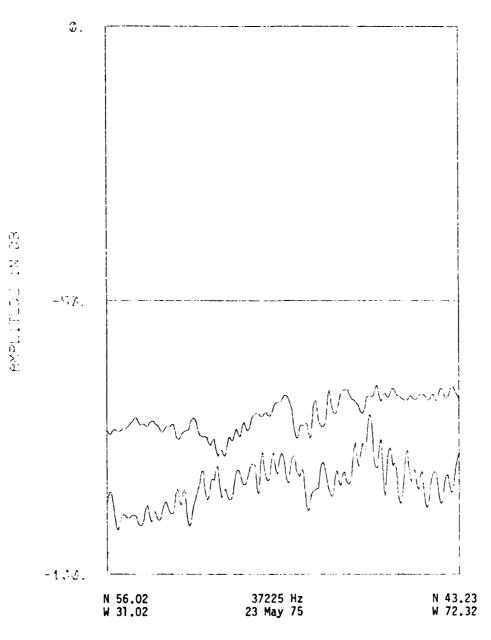
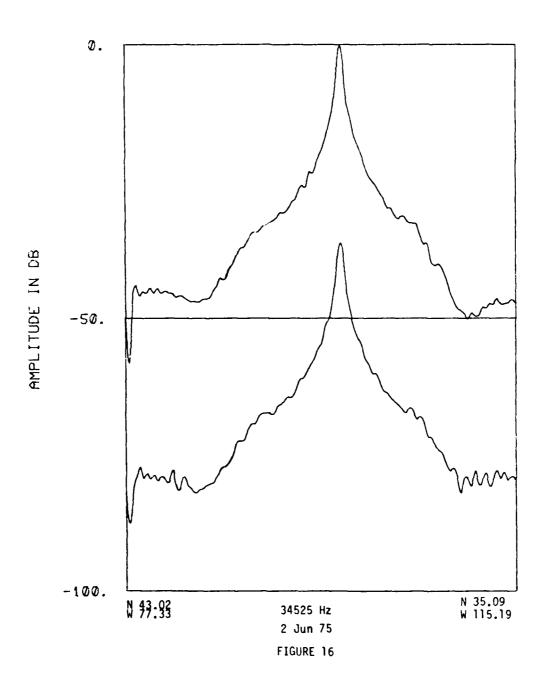
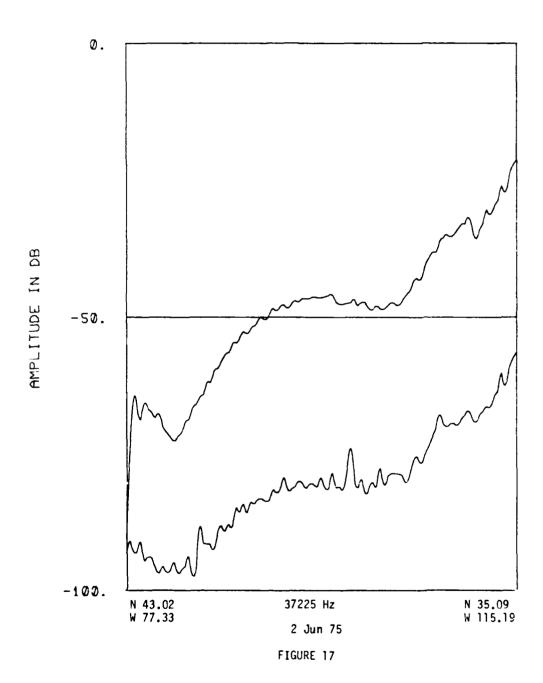
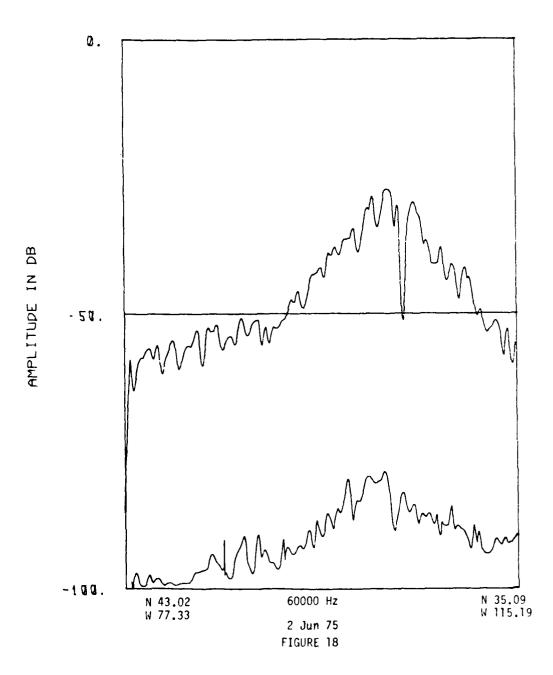
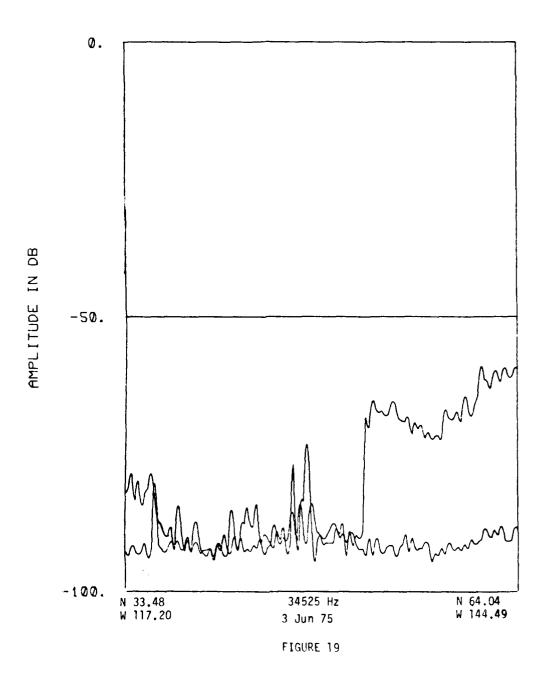


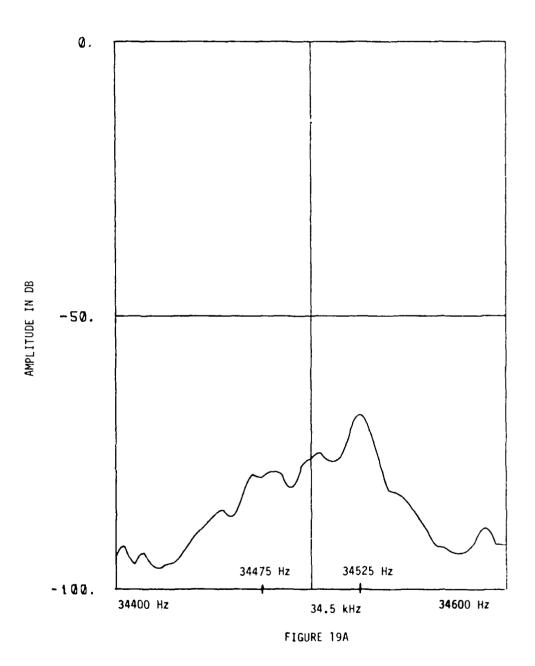
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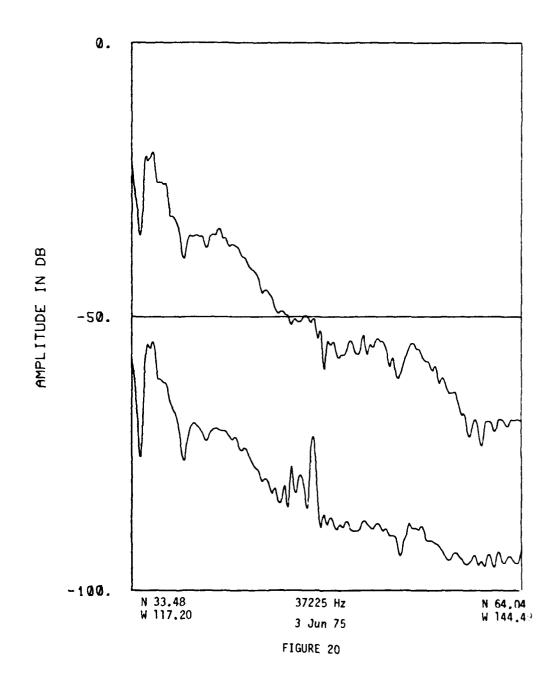












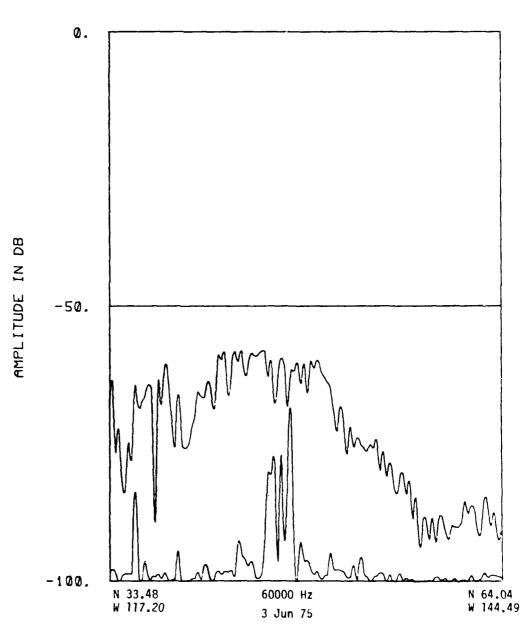
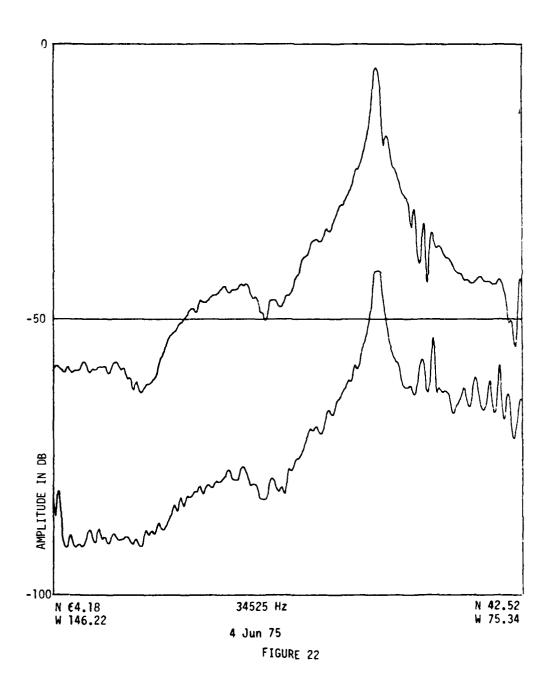
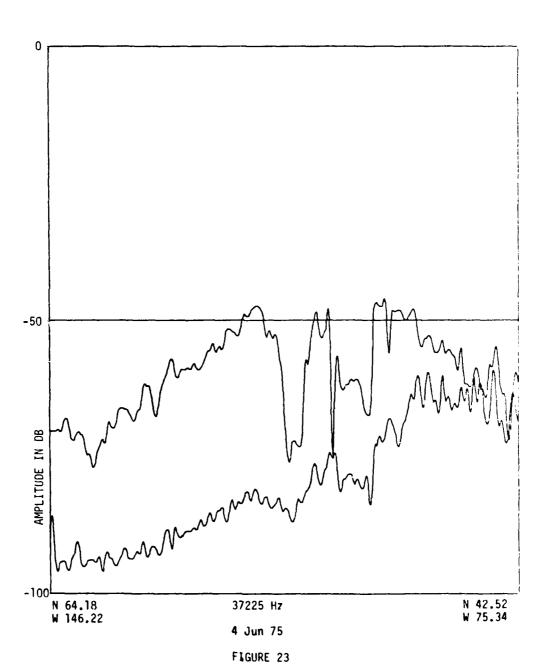


FIGURE 21





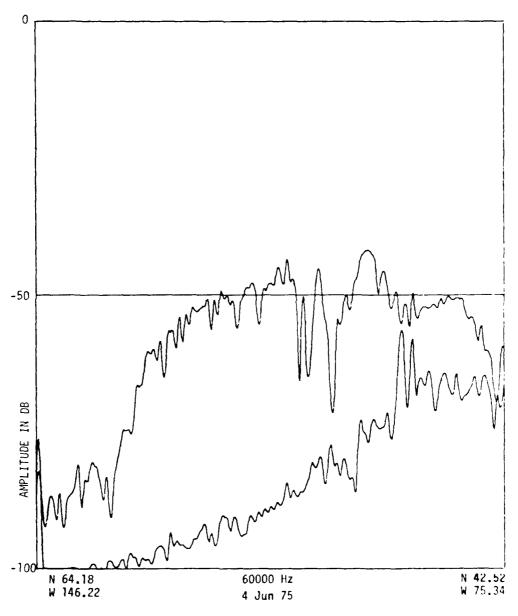
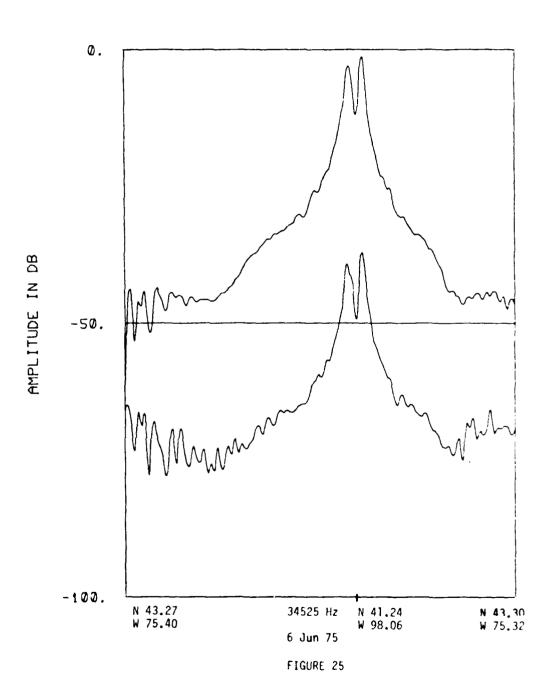
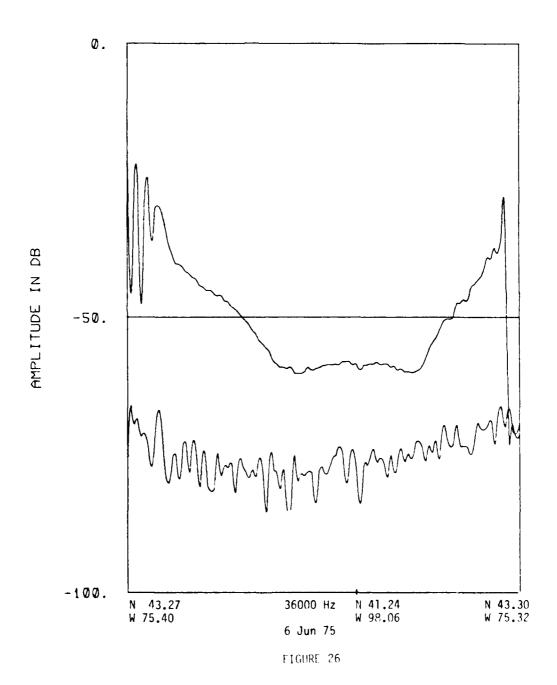
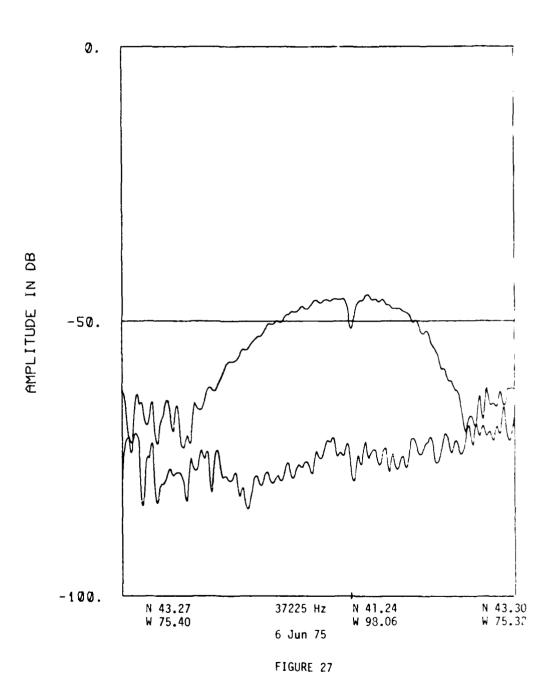
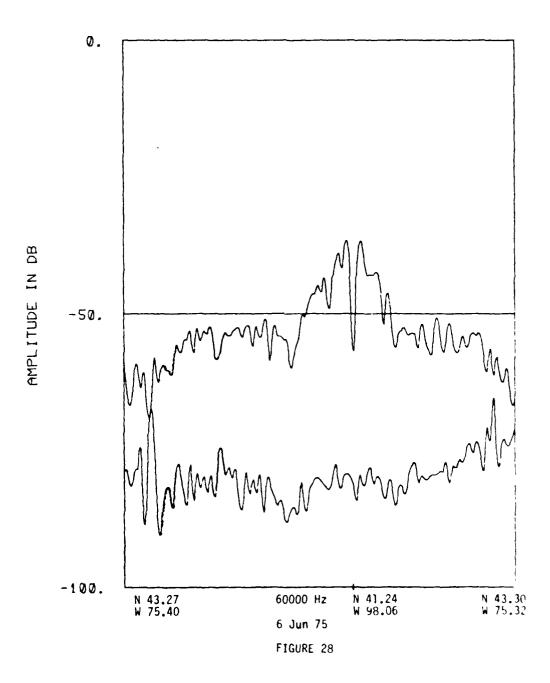


FIGURE 24









APPENDIX

TABULATED DATA

APPENDIX

The following data is a point by point tabulation of each recorded frequency in the order recorded. The Zulu-time for each point is obtained by adding the Zulu-time recorded at each coordinate position with the elapsed time. For example, 2303Z + 4.6M is equivalent to 2307.6 Zulu.

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•					18MAY 75
	-43.7	N43-11	W75.08	2213	
	-44.5			+ 2.6M	
	-44.9			+ 4.6M	
	-46.7			+ 6.6M	
	-45•9			+ 8.6M	
	-46.7			+ 10.6M	
	-46.7			+ 12.6M	
	-46.7			+ 14.6M	
	-48 • 3	N43.17	W72.45	2229	
	-49.0			+ 2.6M	
	- 49 • 4			+ 4.6M	
	-50.2			+ 6.6M	
	-49 • 6			+ 8 · 6M	
	-51.2			+ 10.6M	
	-52•8			+ 12.6M	
	-54•2			+ 14.6M	
	-54.6	N43-40	W70.02	2246	
	-54.8			+ 2.6M	
	-56.0			+ 4.6M	
	-55.9			+ 6.6M	
	-54.5			+ 8 • 6M	
	- 55•5			+ 10.6M	
	-56. 8			+ 12.6M	
	-57.0			+ 14.6M	
	-60∙4	N44-38	W67-17	2303	
	-58 • 0			+ 2.6M	
	-57.9			+ 4.6M	
	- 58 • 6			+ 6.6M	
	-58 • 9			+ 8 · 6M	
	-57 • 1			+ 10.6M	
	-56•2			+ 12.6M	
	-56•9			+ 14.6M	
	-58 • 8	N45 • 45	W64.38	2319	
	-57•2			+ 2.6M	
	-56•8			+ 4.6M	
	-57•3			+ 6.6M	
	-57 • 1			+ 8.6M	
	-58 • 8			+ 10.6M	
	-58 • 1			+ 12.6M	
	-58 • 7			+ 14.6M	
	-59 • 4	N46 - 40	W61 • 44	2336	
	-59•5			+ 2.6M	
	-60.4			+ 4.6M	
	-61.1			+ 6.6M	

FREQUENCY	AMPLI TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-59 - 6 -62 - 3 -60 - 6 -61 - 2	N46•4Ø	W61-44	2336 + 8.6M + 10.6M + 12.6M + 14.6M	18MAY 75
	-63-1 -62-0 -63-8 -64-6 -64-3 -66-2 -65-2	N47•43	₩58•37	2354 + 2.6M + 4.6M + 6.6M + 8.6M + 10.6M + 12.6M + 14.6M	
	-66.1 -65.8 -65.8 -66.1 -66.2 -68.1 -69.5	N48•36	₩55•36	11 + 2.6M + 4.6M + 6.6M + 8.6M + 10.6M + 12.6M + 14.6M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36000•	-22.6 -19.9 -21.7 -25.3 -26.5 -29.4 -29.7 -30.8 -34.2 -35.8 -37.1 -38.6 -39.5 -42.6 -43.7	N43.11 N43.17	W75.08 W72.45	2214 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M 2230 + 3.3M + 5.3M + 7.3M + 7.3M + 7.3M + 11.3M + 13.2M + 13.2M + 13.2M	18MAY 75
	.5.5	1179770	#10.06	CC 9 1	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36000.	-43.5 -43.9 -44.4 -45.0 -45.6 -46.8	N43•40	W70•02	2247 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	18MAY75
	-48.8 -50.6 -51.4 -51.5 -52.3 -55.2 -55.2 -60.3	N44•38	W67.17	+ 15.2M 2304 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-60.9 -61.2 -62.0 -62.8 -62.2 -62.3 -62.4 -61.6	N45•45	W64•38	+ 15.2M 2320 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-60.8 -60.7 -60.9 -60.3 -59.4 -59.3 -57.9	N46.40	W61•44	+ 15.2M 2337 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-57.2 -57.4 -58.4 -59.4 -59.4 -60.0 -59.7 -60.6	N47•43	₩58•37	+ 15.2M 2355 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-60.5 -60.4 -61.3 -59.7 -59.7 -59.3 -61.5	N 48 • 36	₩55•36	+ 15.2M 12 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME DATE
36000•	-60•1 -62•1	N48•36	W55.36	12 18MAY75, + 13.2M + 15.2M
FREQUENCY	AMPLITUDG	LATITUDE	LONGITUDE	ZULU-TIME DATE
37225				
	-64.9 -65.3 -65.9 -65.0 -65.9 -64.3			+ 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M
,	-65.5 -65.5 -67.7 -65.9 -66.8 -66.3 -67.7	N43.17	W72•45	+ 4.2M + 6.2M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M
	-68 • 6 -68 • 0 -68 • 4 -69 • 0 -68 • 1 -68 • 5 -68 • 0 -66 • 7	N43•40	₩7 0. @2	2247 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M 2304
	-69 • 3 -69 • 5 -68 • 8 -70 • 6 -68 • 4 -69 • 0 -68 • 1 -68 • 5	N44.38	W67•17 W64•38	+ 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M 2320
	-67·8 -67·4 -67·4	35 79 97 79 98		+ 4.0M + 6.0M

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•		N45•45	W64.38	2320	18MAY 75
	-67.5			+ 7.9M	
	-68 • 7			+ 9.9M	
	-69•5			+ 11.9M	
	-69.8			+ 13.9M	
	-69•8			+ 15.9M	
	-70+3	N46 · 40	W61 • 44	2337	
	-69·5			+ 4.0M	
	-70.8			+ 6.0M	
	-69 • 8			+ 7.9M	
	-72.0			+ 9.9M	
	-71.7			+ 11.9M	
	-73.2			+ 13.9M	
	-73.5			+ 15.9M	
	-73.0	N47 - 43	W58 • 37	2355	
	-72.2			+ 4.0M	
	-73.8			+ 6.0M	
	-75.0			+ 7.9M	
	-76.9			+ 9.9M	
	~76.6			+ 11.9M	
	-76.4			+ 13.9M	
	-75.7			+ 15.9M	
	-77-3	N48 - 36	₩55•36	12	
	-78 • 6			+ 4.8M	
	-77 - 1			+ 6.0M	
	-77.2			+ 7.9M	
	-79.9			+ 9.9M	
	-76.7			+ 11.9M	
	-78.0			+ 13.9M	
	-76.4			+ 15.9M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•					19MAY 75
	-68 • 9	N49.32	W52-00	. 31	
	-68 • 4			+ 2.6M	
	-68 • 5			+ 4.6M	
	-70-7			+ 6.6M	
	-70.7			+ 8.6M	
	-100-1			+ 10.6M	
	-100.0			+ 12.6M	
	-64.4			+ 14.6M	
	-75 • 6	N50.14	W49 • 03	47	
	-67-1			+ 2.6M	
	-65.7			+ 4.6M	
	-64.8			+ 6.6M	
	-62.6			+ 8 • 6M	
	-62.3			+ 10.6M	
	-60-1			+ 12.6M	
	+58 • 9			+ 14.6M	
	-64.4	N50.54	W46.06	104	
	-65•6			+ 2.6M	
	-65.9			+ 4.6M	
	-65.2			+ 6.6M	
	-64•7			+ 8 · 6M	
	-64.8			+ 10.6M	
	-66•9			+ 12.6M	
	-63•8			+ 14.6M	
	-64.6	N51 • 29	W43.07	121	
	-66•4			+ 2.6M	
	-66•4			+ 4.6M	
	-,66•7			+ 6.6M	
	-67•0			+ 8 • 6M	
	-68 • 1			+ 10.6M	
	-68•2			+ 12.6M	
	-68•0			+ 14.6M	
	-76•7	N51 • 59	₩39 • 5 8	137	
	-66•8			+ 2.6M	
	-63-9			+ 4.6M	
	-65 • 1			+ 6.6M	
	-65.5			+ 8.6M	
	-65.9			+ 10.6M	
	-65 - 1			+ 12.6M	
	-64-8			+ 14.6M	
	-66-7	N51 • 23	W43.06	154	
	-67.3			+ 2.6M	
	-65•6			+ 4.6M	
	-68 • 4			+ 6.6M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGI TUDE	ZULU-TIME	DATE
34525•		N51-23	W43.06	154	19MAY75
	-67 • 1			+ 8.6M	
	-67 • 5			+ 10.6M	
	- 63•5			+ 12.6M	
·	-62.6			+ 14.6M	
•	-63-5	N50 • 48	W46.21	210	
	-67.9			+ 2.6M	
	-67.9			+ 4.6M	
	-69 • 6			+ 6.6M	
	-74-0			+ 8.6M	
	-76.3			+ 10.6M	
	-78.2			+ 12.6M	
	-83.9			+ 14.6M	
	-79 - 3	N50.08	W49 • 30	228	
	-73-1			+ 2.6M	
	- 73.8			+ 4.6M	
	-76·5			+ 6-6M	
	-79 · 1			+ 8 • 6M	
	-79 • 6			+ 10.6M	
	-78•9 -85•7			+ 12.6M	
	-73•1	N 40 04	VEO 07	+ 14.6M	
	-76·1	N49.26	W52.27	244	
	-87 • 1			+ 2.6M	
	-81.0			+ 4.6M	
	-78 • 9			+ 6+6M	
	- 74•3			+ 8.6M + 10.6M	
	-70.8			+ 12.6M	
	-67.6			+ 14.6M	
	-66.7	N48 • 44	W55•12	300	
	-67 • 4	14-10 4 -1-1	#33.15	+ 2.6M	
	-66.8			+ 4.6M	
	-64.4			+ 6.6M	
	-65.0			+ 8.6M	
	-65.0			+ 10.6M	
	-62.1			+ 12.6M	
	-60.0			+ 14.6M	
	-61.7	N47.57	W57.54	317	
	-60.0	14-71-57	W37+34	+ 2.6M	
	-60.7			+ 4.6M	
	-58 - 1			+ 6.6M	
	-54.8			+ 8.6M	
	-54.3			+ 10.6M	
	-55.6			+ 12.6M	
	-56.9			+ 14.6M	
	-59 • 6	N47-11	W60.21	334	
	-			~~~	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•		N47-11	W60.21	334	19MA[75
	-61.9			+ 2.6M	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	-60•8			+ 4.6M	
	-58 • 8			+ 6.6M	
	-57 - 3			+ 8.6M	
	-59 • 8			+ 10.6M	
	-62-8			+ 12.6M	
	-76•3			+ 14.6M	
	-63•9	N46 • 19	W62.42	350	
	-61:7			+ 2.6M	
	-56 • 3			+ 4.6M	
	-56.0			+ 6.6M	
	-53-5			+ 8 • 6M	
	-54-3			+ 10.6M	
	-53•6			+ 12.6M	
	-51.8			+ 14.6M	
	-51.2	N45 • 33	W65.05	407	
	-52 • 4			+ 2.6M	
	-52-6			+ 4.6M	
	-58 - 5			+ 6.6M	
	-56.8			+ 8.6M	
	-58 • 1			+ 10.6M	
	-50.7			+ 14.6M	
	-48 • 7	N44.35	W67-20	424	
	-47 • 4			+ 2.6M	
	-48 • 6			+ 4.6M	
	-49 • 5			+ 6.6M	
	-51 • 3			+ 8.6M	
	-51 • 4			+ 10.6M	
	-49 • 7			+ 12.6M	
	-52•2			+ 14.6M	
	-57•9	N44-12	W70.03	441	
	-54.4			+ 2.6M	
	-50•7			+ 4.6M	
	-45.7			+ 6.6M	
	-43.9			+ 8.6M	
	-43-9			+ 10.6M	
	-43-1			+ 12.6M	
	-41.7			+ 14.6M	
	-39 • 4	N43.47	W72.34	457	
	-38 • 9			+ 2.6M	
	-38 • 4			+ 4.6M	
	-39-8			+ 6.6M	
	-39 • 5			+ 8.6M	
	-37.3			+ 10.6M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-36+1 -37+8	N43•47	W72•34	457 + 12.6M + 14.6M	19MAY75
FREQUENCY	AMPLITUDE	LATITUDG	LONGITUDG	ZULU-TIME	DATE
36000.					1044475
30000	-60.6 -61.4 -59.1 -59.1 -57.9 -99.7 100.5 -54.8 -53.9 -53.1 -53.6 -53.2 -55.4 -55.6 -54.8 -56.9 -61.3 -60.6	N49 • 32 N50 • 14	W49.03	32 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 13.3M + 3.3M + 7.3M + 7.3M + 9.3M + 11.3M + 11.3M + 11.3M + 13.2M + 13.2M + 13.2M + 13.2M + 13.2M + 13.2M + 13.3M + 5.3M +	19MAY75
	-60.4 -60.2 -60.3 -61.0 -64.8 -62.8 -63.1 -63.7 -63.1 -59.8 -61.8 -60.0 -62.6 -69.1 -60.5 -65.8	N51 • 29 N51 • 59	W43•07 W39•58	+ 7.3M + 9.3M + 11.3M + 13.2M + 15.2M 122 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 13.2M + 15.2M 138 + 3.3M + 3.3M + 5.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36000-		N51 • 59	W39•58	138	19MAY75
	-63•9			+ 7.3M	
	-63-1			+ 9.3M	
	-61.0			+ 11.3M	
	-60-1			+ 13.2M	
	-62.4	NE4 00	ti 40 .07	+ 15.2M 155	
	-62•6	N51 • 23	W43.06	+ 3.3M	
	-62-4			+ 5.3M	
	-58+9			+ 7.3M	
	-58 - 1			+ 9.3M	
	-63.2			+ 11.3M	
	-64•7 -60•5			+ 13.2M	
	-59·5			+ 15.2M	
	-58 • 6	N50 • 48	W46.21	211	
	-56.7	1426440	440461	+ 3.3M	
	-55•1			+ 5.3M	
	-54-6			+ 7.3M	
	-55.2			+ 9.3M	
	-54.9			+ 11.3M	
	-55 • 1			+ 13.2M	
	-54.4			+ 15.2M	
	-53.5	N50.08	W49 - 30	229	
	-53-1			+ 3.3M	
	-52-2			+ 5.3M	
	-52.5			+ 7.3M	
	-53.3			+ 9.3M	
	-52.9			+ 11.3M	
	-52-4			+ 13.2M	
	-54.0			+ 15.2M	
	-56•7	N49 • 26	W52.27	245	
	-55•6			+ 3.3M	
	-52•5			+ 5 · 3M	
	-51.5			+ 7.3M	
	-51-2			+ 9.3M	
	-51.6			+ 11.3M	
	-53.9			+ 13.2M	
	-54-6			+ 15.2M	
	-54•2	N48 • 44	W55.12	301	
	-53•6			+ 3.3M	
	-53.7			+ 5.3M	
	-53-2			+ 7.3M	
	-55 • 4			+ 9.3M	
	-58 - 0			+ 11.3M	
	-55 • 1			+ 13.2M	
	-50.9			+ 15.2M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZUL U-TIME	DATE
36000•		N47.57	W57.54		19MAY75
	-49 • 6	N47.57	W57.54	318	
	-49 • 6			+ 3.3M	
	-48.9			+ 5.3M	
	-48 - 4			+ 7.3M	
	-47-9			+ 9.3M	
	-46+6			+ 11.3M + 13.2M	
	~45 • 5			+ 13.2M + 15.2M	
	-45-9	N47 • 11	W60.21	→ 13•2M 335	
	-49•7 -52•0	N4/•11	#66+51	+ 3.3M	
	-53•¢			+ 5.3M	
	-51•8			+ 7.3M	
	-53·7			+ 9.3M	
	-52.2			+ 11.3M	
	-49.7			+ 13.2M	
	- 51•5			+ 15.2M	
	-56.9	N46 - 19	W62.42	351	
	-68.0			+ 3.3M	
	-63.8			+ 5.3M	
	-57 • 4			+ 7.3M	
	-52-7			+ 9.3M	
	-51.5			+ 11.3M	
	-54-2			+ 13.2M	
	-59.3			+ 15.2M	
	-60.5	N45.33	W65.05	408	
	-58-0			+ 3+3M	
	-56.7			+ 5.3M	
	-55•9			+ 7.3M	
	-53•3			+ 9.3M	
	-48 - 2			+ 11.3M	
	-46•9			+ 13.2M	
	-47-2			+ 15.2M	
	-41 • 9	N44.35	W67-20	425	
	-41 - 5			+ 3.3M	
	-44-0			+ 5.3M	
	-45.9			+ 7.3M	
	-49 • 2			+ 9.3M	
	-54.3			+ 11.3M + 13.2M	
	-43.0			+ 15.2M	
	-38 • Ø -38 • 1	N44-12	W70.03	+ 13.2M	
	-38 · 1 -41 · 2	144412	W W W	+ 3.3M	
	-49.8			+ 5.3M	
	-38.2			+ 7.3M	
	-37.0			+ 9.3M	
	9,40			. , , , ,	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36000.	-41•2 -38•0 -35•3	N44•12	W70•03	442 + 11.3M + 13.2M + 15.2M	19MAY75
	-35.3 -34.5 -35.3 -31.1 -26.4 -25.4 -21.6 -17.0	N43•47	W72•34	+ 15.2m 458 + 3.3m + 5.3m + 7.3m + 9.3m + 11.3m + 13.2m + 15.2m	
FREQUENCY	AMPLITUDE	LATITUDE	LONGI TUDE	ZULU-TIME	DATE
19600	-54-2 -60-2 -58-6 -61-0 -98-1	N 49 • 32	₩52•00	32 + 4.0M + 6.0M + 7.9M + 9.9M	19MAY 75
	-97.3 -55.5 -95.4 -55.2 -60.6 -58.6 -58.9	N50•14	W49•03	+ 11.9M + 13.9M + 15.9M - 48 + 4.0M + 6.0M + 7.9M	
	-57·2 -73·6 -49·4 -46·9 -56·2 -53·3 -50·7	N50•54	W46•0 6	+ 9.9M + 11.9M + 13.9M + 15.9M 105 + 4.0M + 6.0M	
	-53.5 -54.1 -46.4 -48.3 -48.6 -47.0	N51•29	W43•07	+ 7.9M + 9.9M + 11.9M + 13.9M + 15.9M 122 + 4.0M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
19600.		N51.29	W43.07	122	19MAY 75
	-47.5			+ 6.0M	INMITS
	-47-4			+ 7.9M	
	-45.9			+ 9.9M	
	-45.2			+ 11.9M	
	-48 • 3			+ 13.9M	
	-47-2			+ 15.9M	
	-44-7	N51.59	₩39 •58	138	
	-51-5			+ 4.0M	
	-48 - 4			+ 6.0M	
	-45-7			+ 7.9M	
	-44-2			+ 9.9M	
	-44.4			+ 11.9M	
	-48 - 2			+ 13.9M	
	-50-7	1154 00		+ 15.9M	
	-48-1	N51.23	W43.06	155	
	-5 0 -5 -51-2			+ 4.0M	
	-51•2 -51•4			+ 6.0M	
	-56 - 0			+ 7.9M	
	-53•9			+ 9.9M	
	-51.6			+ 11.9M	
	-55.7			+ 13.9M	
	-57.5	N50.48	N. 4. 0.1	+ 15.9M	
	-59+7	1428+40	W46-21	211	
	-65.2			+ 4.0M	
	-65.4			+ 6.0M + 7.9M	
	-67.2				
	-64.1				
	-71-2			+ 11.9M + 13.9M	
	-76-2			+ 15.9M	
	-73-0	N50.08	W49 • 30	229	
	-68 - 5		# -17 ()	+ 4.0M	
	-63.9			+ 6.0M	
	-70.0			+ 7.9M	
	-60-2			+ 9.9M	
	-59-5			+ 11.9M	
	-61-4			+ 13.9M	
	-57 • 2			→ 15.9M	
	-55-3	N49.26	W52.27	245	
	-54.6			+ 4.0M	
	-54-7			+ 6.0M	
	-58+9			+ 7.9M	
	-54.0			+ 9.9M	
	-55-0			+ 11.9M	
	-54.4			+ 13.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
10.488					
19600.		N49.26	W52.27	245	10000
	-56-4			+ 15.9M	19MAY75
	-56-3	N48 • 44	W55.12	301	
	-52.8			+ 4.0M	
	-53-2			+ 6.0M	
	~54.2			+ 7.9M	
	-61•0 -53•5			+ 9.9M	
				+ 11.9M	
	~5 2•6 - 53•9			+ 13.9M	
	-56•5			+ 15.9M	
	-55• <i>6</i>	N47.57	W57.54	318	
	-52.9			+ 4.8M	
	-54.1			+ 6.0M	
	-52.1			+ 7.9M	
	-52.4			+ 9.9M	
	-50-3			+ 11.9M	
	-50.7			+ 13.9M	
	-53.4	NAT 11		+ 15.9M	
	-53.1	N47-11	W60.21	335	
	-51.1			+ 4.0M	
	-54.0			+ 6. em	
	-52.9			+ 7.9M	
	-54-1			+ 9.9M	
	-54.2			+ 11.9M	
	-54+3			+ 13.9M	
	-56.0	N46 • 19	W62.42	+ 15.9M	
	-56.4		W02+42	351	
	-58 • 7			+ 4.0M	
	-57• <i>A</i>			+ 6.0M	
	-60.5			+ 7.9M	
	-59•9			+ 9.9M	
	-59 - 1			+ 11.9M	
	-59 - 1			+ 13.9M	
	-61.6	N45.33	W65.05	+ 15.9M	
	-60-4			408 + 4.0M	
	-60.1			+ 4.0M + 6.0M	
	-60.0			+ 7.9M	
	-59 • 4			+ 9.9M	
	-62.5			+ 11.9M	
	-62·1			+ 13.9M	
	-60.9 -61.7			+ 15.9M	
	-62.0	N44.35	W67.20	425	
	-62.7			+ 4.0M	
	-59.9			+ 6.0M	
	J7 • 7			+ 7.9M	
				· • > F1	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
19600.		N44•35	W67.20	425	19MAY75
	-62.2			+ 9.9M	
	-62-4			+ 11.9M	
	-61.4			+ 13.9M	
	-60.5			+ 15.9M	
	-61.5	N44.12	₩70.03	442	
	-65.7			+ 4.0M	
	-63+8			+ 6.0M	
	-63-0			+ 7.9M	
	-60.8			+ 9.9M	
	-66•6			+ 11.9M	
	-61 • 4			+ 13.9M	
	-60.6			+ 15.9M	
	-60.8	N43-47	W72.34	458	
	-59+3			.+ 4.0M	
	-59 - 1			+ 6.0M	
	- 59•6			+ 7.9M	
	-60+9			+ 9.9M	
	-60-2			+ 11-9M	
	-61.4			+ 13.9M	
	-62+6			+ 15.9M	

FRECUENCY	ANTLI LUUF.	LATITUDE	LONGITULE	2 UL U-11ME	1/ATE
19660•					21MAY75
	-67.1	N43.23	W72.32	5559	
	-62.9			+ 5. (k	
	-64.1			+ 4.64	
	-61.4			+ 6.64	
	-66.1			+ 8.6M	
	-65.1			+ 10 · 6M	
	<i>-67.</i> 8			+ 12.6M	
	-62.4			+ 14.6%	
	-63.5	N43+32	k69.49	2246	
	-64.7			+ 2.64	
	-63.0			+ 4.6Y	
	-61.8			+ 6.6M	
	-63.5			+ 8.6M	
	-66.3			+ 10.6	
	-60.8			+ 12.6M	
	-66.9			+ 14.6M	
	-67.8	N44.31	h67.34	236.5	
	- 63.6			+ 2.6M	
	-60.8			+ 4.EM	
	-60.2			+ 6.6M	
	-666			+ 8.6M	
	-61.4			+ 10.EM	
FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	FULU-11MF	11 AC
		211111000	Lower robi.	r olo Hiri	r.e. 11
34525•					21MAY 75
	-49.8	N43.23	W72.32	2230	
	-49.7			+ 3.3M	
	-50.5			+ 5.34	
	-51.3			+ 7.3M	
	-5€-3			+ 9.3M	
	-51 • 7			+ 11.3M	
	-52.2			+ 13.2M	
	-53.2			+ 15.24	
	-53.4	N43.32	V.69 • 49	2247	
	-55.4			+ 3.3M	
	-55.1			+ 5.3*	
	-56.5			+ 7.3M	

FREGUENCY	AMFLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-55.9 -56.1 -58.1 -58.3	N43•32	₩69•49	2247 + 9.3M + 11.3M + 13.2M	21MAY75
	-57.8 -58.8 -58.7 -58.2 -58.5	N44•31	h 67•34	+ 15.2M 2303 + 3.3M + 5.3M + 7.3M + 9.3M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	2 ULU-TIME	DATE
36000.					21MAY 75
	-36.9	N43.23	W72.32	2230	EIFAI 15
	-38 • 1			+ 4.0M	
	-39.5			+ 6.0M	
	-39.9			+ 7.9M	
	-41 • 1			+ 9.9M	
	-43.6			+ 11.9M	
	-43.2			+ 13.9M	
	-43 • 4			+ 15.9M	
	-44.5	N43.32	W69 • 49	2247	
	-44.0			+ 4.0M	
	-44.2			+ 6.PM	
	-45.0			+ 7.9	
	-45.4			+ 9.9M	
	-46 • 1			+ 11.9M	
	-47.0			+ 13.9N	
	-47.4			+ 15.9M	
	-54.4	N44.31	WE7.34	5363	
	-50•8 -51•0			+ 4.8M	
	-51.0 -51.1			+ 6.6M	
	-52.5			+ 7.9M	
	-25+2			+ 9.9M	

FRECUENCY	AMFL I TUDG	LATITUDE	LONGITUDE	ZULU-TIME	DATE
19600•					21MAY 75
	-60.8	N45.36	V65.11	2319	
	-56 - 1			+ 2.6M	
	-60.1			+ 4.6M	
	-59.5			+ 6.6M	
	-59 • 3			+ 8.6M	
	-60.3			+ 10.6M	
	- 59 .7			+ 12.6M	
	-61.6			+ 14.6M	
	-66.3	N46.23	W62.58	2336	
	-58 • 7			+ 2.6M	
	-57.8			+ 4.6M	
	-58 • 5			+ 6+6M	
	-60.8			+ 8 • 6M	
	-62.0			+ 10.6M	
	-60.5			+ 12.6M	
	-59 • 9		150.10	+ 14.6M	
	-62.8	N47.20	k59 • 49	2352	
	-58 • 3			+ 2.6M	
	-57 • 3			+ 4.6M + 6.6M	
	-58 • 1			+ 8 · 6M	
	-56.6			+ 10.6M	
	-55 • 1			+ 12.6M	
	-55•1 -55•0			+ 14.6M	
	-57·1	N47.40	k5ۥ39	9	
	-54·1	141146	#3(.•3)	+ 2.(M	
	-59 • 1			+ 4.6M	
	-61.7			+ 6.CM	
	-54.5			+ 8.EM	
	-52.6			+ 10 + 6M	
	-50.8			+ 12.6M	
	-54.2			+ 14.6M	
	-53.7	N48 • 21	W53.30	26	
	-54.6			+ 2.EM	
	-55-1			+ 0.6	
	-55∙0			+ 6.6M	
	-57.1			+ 4.6M	
	-54.2			+ 11'+€M	
	-54.0			+ 12+6M	
	-55+9			+ 14.6M	
	-61 • 4	N48 . 56	W20 • 55	42	
	-(1.2			+ 2 · 6M	

FREQUENCY	AMPLITUDE	LATITUDE	FONGITUDE	AULU-TIME	DATE
19600.		N48 • 5 6	₩ 5 0•22	42	21MAY 75
	-68.2			+ 4.6M	
	-70.5			+ 6.6M	
	-76.6			+ 8.6M	
	-75.0			+ 18.6M	
	-73·8			+ 12.6M	
	-72.0			+ 14.6M	
	··79 • 3	N49.23	W47.03	59	
	-63•6 -59•8			+ 2.6M	
	-61.6			+ 4.6M	
	-59.4			+ 6.6M	
	-56•6			+ 8.6M	
	-56.1			+ 10.6M	
	-55•1			+ 12.6M	
	-54.7	N49.43	1145	+ 14.€M	
	-53.1	1447.43	W43.44	116	
	-56.6			+ 2.6M	
	-48.4			+ 4.6M	
	-52.8			+ 6.CM	
	-51.4			+ 8.6M	
	-49.6			+ 10.6M + 12.6M	
	-49 • 1			+ 14.6M	
	-45.8	N49.58	h40.28	132	
	-44.0			+ 8• (A	
	- 48 • 2			+ 4.6M	
	-47 • 4			5 6.6M	
	-46.7			+ 8.6M	
	-49 • 6			+ 10.64	
	-47.2			+ 12.6M	
	-48 - 4			+ 14.6M	
	-48 • 4	N50.38	W37.22	149	
	-47 • 3 -47 • 1			+ 2.6M	
	-47 • 1			+ 4. (M	
	-46.4			+ 6.68	
	-46.1			+ 8.6M	
	-42.1			+ 10.6M	
	-43.5			+ 12.6M	
	-43.1	N51-17	104.40	+ 14.6M	
	-43.4	1427.11	h34.10	205	
	-46.3			+ 2.6M	
	-46.9			+ 4. EM	
				+ 6+6M	
	-42.9			A 10 4M	
	-43.7			+ 10+6M + 12+6M	
				T 16.60	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	SULU-TIME	DATE
19600.		N51.17	W34.10	205	21MAY75
	-41.2			+ 14.6M	
	-39 • 8	N51.50	W30.59	555	
	-44.0			+ 2.6M	
	-45 • 4			+ 4.6M	
	-42.3			+ 6.6M	
	-45.7			+ 8.6M	
	-45.9			+ 10 · 6M	
	-49 • 1			+ 12.6M	
	-46.9	N52.04	V.27·53	238	
	- 47 • 7			+ 2.6M	
	-45•9			+ 4.6M	
	-44.7			+ 6 • 6M	
	-47.7			+ 8.6M	
	-44.5			+ 10.6M	
	-44.6			+ 12.6M	
	-46.9	NEO 'OC	UO 4 27	+ 14.6M 255	
	-46.1	N52.06	W24.37	+ 2.6M	
	-50.5			+ 4.6M	
	-47.9			+ 6.6M	
	-44•3 -46•5			+ 8.6M	
	-48 • 6			+ 10.6M	
	-46.8			+ 12.6M	
	-46.8			+ 14.6M	
	-51.7	N52.03	W21-16	312	
	-43.7	1132100	W21410	+ 2.6M	
	-43.1			+ 4.6M	
	-45.7			+ 6.6M	
	-43.5			+ 8.6M	
	-42.2			+ 10.6M	
	-46.8			+ 12.6M	
	-45 • 6			+ 14.6M	
	-45.8	N52.24	W18 • Ø5	328	
	-44.6			+ 2.6M	
	-49 • 6			+ 4.6M	
	-49 • 1			+ 6.6M	
	-56-1			+ 8.6M	
	-56 • 4			+ 10.6M	
	-59.7			+ 12.6M	
	-61.6			+ 14.6M	
	-52-1	N53-01	W14.02	345	
	-54-2			+ 2.6M	
	-51 • 8			+ 4.6M	
	-47•9			+ 6.6M	

FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
19666.	-46.5	N53+01	W14.02	345 + 8.6M	21MAY75
	-44.7			+ 10.6M	
	-43.3			+ 12.6M	
	-40 - 4			+ 14.6M	
	-43.9	N52.52	W11.28	401	
	-41.3			+ 2.6M	
	-41 - 1			+ 4.6Y	
	-35.5			+ 6.61	
	-37.3			+ 8.64	
	-37.6			+ 10.6M	
	-34.0			* 12.6M	
	-37.4			+ 14.6M	
	- 35•5	N52 • 30	W28 • 02	418	
	-32.7			+ 2.68	
	-35.0			+ 4. GR	
	-28 • 6			* 8.6M	
	-30.0			+ 10.6M	
	-27 • 4			+ 12.6M	
	-33.3			+ 14.6%	
	-28 • 1	N52 • 01	W24.47	434	
	-25.2			+ 2.6M	
	-56.5			+ 4.6M	
	-24.6			+ 6.6M	
	-31. 8			+ 8.6M	
	- 37 .7			+ 10.7M	
	- 23 •3			* 12.6M	
	- 22 .7			+ 14.6M	
	- 25•3	N52 • 25	W01 • 26	451	
	-27.2			+ 2.6M	
	-31.2			+ 4.6M	
	-36.0			+ 6.6M	
	-30 • 4			+ 8.6M	
	-39 • 2			+ 10.0M	
	-28 • 2			+ 12.0%	
	-33.6			+ 14.6M	
FREGUNOR	AMPLITUDE	LATITUDE	LONGITUDE	SOLO-IIME	DATE
34525•					218AY75
	-56.6	N45.36	V65.11	8380	

FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	RULU-TIME	DATE
34525•	-58 • 1 -56 • 7 -56 • 9 -57 • 8 -56 • 8	N45•36	₩65•11	2320 + 3.3M + 5.3M + 7.3M + 9.3M	21MAY75
	-57 • 5 - 58 • 4			+ 11.3M + 13.2M + 15.2M	
	−58 • 4 −59 • 0 −58 • 1 −59 • 6	N46•23	W62•28	2337 + 3.3M + 5.3M + 7.3M	
	-60.5 -61.0 -60.4 +59.8			+ 9.3M + 11.3M + 13.2M + 15.2M	
	-68.5 -68.7 -50.2 -61.9	N47•20	h.59 • 49	9353 + 3.3M + 5.3M + 7.3M	
	-59•9 -6(°•8 -62•1			+ 9.3M + 11.3M + 13.8M	
	-62.8 -64.1 -65.2 -65.4	N47 • 40	k56•39	+ 15.28 10 + 3.38 + 5.38	
	-65.8 -66.1 -65.9 -66.5			+ 7.38 + 9.38 + 11.38	
	-75.8 -77.4 -78.2	843.81	1.53 • 30	+ 13.2M + 15.6M - 27 + 3.3M	
	-64.9 -65.1 -66.2 -65.7			+ 5.3V + 7.3M + 9.3N + 11.2V	
	-66.1 -66.3 -67.6 -71.0	N44.56	k50+20	+ 13+0M + 15+0M -43 + 3+3M	
	-72 · 6 -73 · 6 -74 · 8 -73 · 1			+ 5.3N + 7.3N + 5.3M + 11.3N	

FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	EULU-TIME	DATE
34525	~75.8	N48 • 56	h.50•22	43 + 13.2M	21MAY 75
	-76.9 -85.2	N49 • 23	h.47 • 63	+ 15.2M 60	
	-80•1	N47 • C 3	W47•63	+ 3.3M	
	-78 • 3			+ 5.3M	
	-75.0			+ 7.3M	
	-70.2			+ 9.3M	
	-72.8			+ 11.3M	
	-69.0			+ 13.2M	
	<i>-69</i> ∙8			+ 15.2M	
	-69 • 6	N 49 • 43	443.44	117	
	-68 • 3			+ 3.3M	
	-68.2			+ 5.3M	
	-67.7			+ 7.3M	
	-68.2			+ 9.3M	
	-69 • O			+ 11.3M	
	-69 • 9			+ 13.2M	
	-69.5			+ 15.2M	
	- 69•9	N49 • 58	k.40.28	133	
	-75.2			+ 3.3M	
	-70.8			+ 5.3M	
	-71.8			+ 7.3M	
	-74.2			+ 9.3M	
	-69 • 4			+ 11.3M	
	-66 • 9			+ 13.2M	
	-69.2			+ 15.2M	
	-68 • 0	N50 • 38	₩37•^-	150	
	-68.9			+ 3.3M	
	-69.0			+ 5.3M	
	-69 • 7			+ 7.3M	
	-67•5 -68•2			+ 9.3M	
	-68.0			+ 11.3M	
	-69 • 6			+ 13.2M	
	-70.0	N51 - 17	112 4 1 6	+ 15.2M	
	-73-2	1421.17	W34.10	206	
	-69 • 6			+ 3.3M + 5.3M	
	-70.4			+ 5.3M + 7.3M	
	-72.9			+ 9.3M	
	-70.6			+ 11+3M	
	-67.5			+ 13.2M	
	-69.7			+ 15.2M	
	-69.2	N51.50	W30.59	223	
	-66 • 4			+ 3.3M	
	-67 • 4			+ 5.3M	
				J = J · ·	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-70 • 6 -67 • 2 -67 • 8 -65 • 0	N51.50	W30•59	223 + 7.3M + 9.3M + 11.3M	21MAY75
	-62.6 -64.4 -62.3 -62.5 -62.0	N52•04	W27•53	+ 13.2M + 15.2M 239 + 3.3M + 5.3M	
	-62.0 -61.9 -63.0 -61.7	N50 04		+ 7.3M + 9.3M + 11.3M + 13.2M + 15.2M	
	-61.6 -63.1 -63.8 -64.3 -63.9	N52•06	W24•37	256 + 3.3M + 5.3M + 7.3M + 9.3M	
	-63.9 -64.4 -63.8 -64.8	N52•03	W21•16	+ 13.2M + 15.2M 313 + 3.3M	
	-64.6 -67.8 -70.1 -69.4 -75.0			+ 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-73.4 -71.4 -68.4 -68.7 -68.4	N52•24	W18•05	+ 15.2M 329 + 3.3M + 5.3M + 7.3M	
	-68 · 3 -69 · 9 -69 · 2 -69 · 5 -67 · 7	NE 2 as	III A 00	+ 9.3M + 11.3M + 13.2M + 15.2M	
	-69.4 -70.8 -71.4 -71.2	N53•01	W1 4.02	346 + 3.3M + 5.3M + 7.3M + 9.3M	
	-68 • 6 -69 • 7 -68 • 9			+ 11.3M + 13.2M + 15.2M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-68.7 -69.2 -69.8 -69.6 -70.9	N52+52 N52+52	M11•58	402 + 3.3M + 5.3M + 7.3M + 9.3M	21MAY75
	-73.1 -73.3 -73.0 -72.5 -73.1 -75.5	N52•30	WØ8•Ø2	+ 11.3M + 13.2M + 15.2M 419 + 3.3M + 5.3M	
	-81.3 -84.4 -88.7 -89.2 -84.7 -86.5	N52•01	4:04•47	+ 7.3M + 9.3M + 11.3M + 13.2M + 15.2M + 435 + 3.3M	
	-87.2 -84.9 -86.0 -80.5 -78.7 -77.6			+ 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M	
	-79.3 -74.1 -81.4 -79.9 -74.3 -79.0	N52•25	₩01•26	452 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M	
	-74.9 -73.5			+ 13.2M + 15.2M	
FREQUENCE	AMFLITUDE	LATITUDE	LONGITUDE	SULU-TIME	DATE
36666.	-59.4 -(2.2 -61.0 -92.5 -62.3	N45•36	W65•11	2320 + 4.6M + 6.0M + 7.9M + 9.9M	21MAY75

FLOCUENCY	ANPLITUDE	LATITUDE	LONGITUDE	EULU-IIME	DATE
36000•	-61.9	N45•36	W65•11	2320 + 11.9M	21MAY75
	-€2• 2			+ 13.9M	
	-60.5			+ 15.9M	
	-59 • 6	N46.23	1.65.58	2337	
	-59 • 4			+ 4.0M	
	-5 8•8			+ 6.0M	
	-58 • 1			+ 7.9M	
	-57.7			+ 9.9M	
	-57.7			+ 11.9M	
	-57.3			+ 13.9M	
	-57 • 1			+ 15.3M	
	- 56•9	N47.26	k59 • 49	2353	
	-57.0			+ 4. CM	
	~ 55•5			* 6.0M	
	-56.4 -56.0			+ 7.9N	
	-55.9			+ 9.9M	
	-82·5			+ 11.9M	
	-57.7			+ 13.9M	
	-60·8	N47 • 40	₩5 <i>6</i> •39	+ 15.98	
	-61.3	10 44 1 ● 44 £/	W26 • 39	10 + 4.05	
	-61.7			+ 6.0M	
	-60.3			+ 7.9M	
	-66.6			+ 9.9M	
	-60.8			+ 11.9M	
	-61.8			+ 13.9M	
	-61.8			+ 15.98	
	-62.5	N48.21	₩53•30	27	
	-(3.8			+ 4.0M	
	-62.7			+ 6.68	
	-63.4			+ 7.98	
	-62.0			+ 9.98	
	-61.4			+ 11.9M	
	-62.7			+ 13.9M	
	-62.5			+ 15.9M	
	-66.9	N48.56	750·22	43	
	-60.9			+ 2.0M	
	- 60•3			+ 6.0M	
	-59.5			+ 7.9M	
	-5 9 •8			+ 9.9M	
	-59 •8			+ 11.9M	
	-5 9 • 9			+ 13.9M	
	-57.3			+ 35.9M	
	-58 - 7	N49 • 23	4.47 · 13	ϵv	
	- 58 • 3			+ 4.1'M	

FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	EULU-TIME	DA1E
3/646.	-59•3 -59•2 -59•5 -60•0 -53•3	N49•23	147.03	60 + 6.6M + 7.9M + 9.9M + 11.9M + 13.9M	21MAY75
	-58 · 1 -60 · 1 -59 · 7 -57 · 6 -60 · -62 · 1 -61 · 0	N49•43	W43•44	+ 15.9M 117 + 4.6M + 6.6M + 7.5M + 9.9M + 11.9M	
	-58.9 -62.4 -52.0 -65.0 -53.3 -59.0	N 49 • 58	%40•£3	+ 13.9M + 15.9M 133 + 4.0M + (.CM + 7.9M	
	-58.4 -59.8 -61.4 -70.3 -58.3 -59.3	N50∙38	W37•22	+ 9.9M + 11.9M + 13.9M + 15.9M 150 + 4.0M	
	-59 · 2 -59 · 9 -59 · 4 -58 · 0 -62 · 1 -54 · 3 -57 · 7	N51•17	1124 24	+ 7.9M + 9.9M + 11.9M + 13.9M + 15.9M	
	-54.7 -59.2 -59.2 -56.5 -58.6 -58.3	N31•17	₩34•36	+ 4.6M + 6.6M + 7.9M + 9.9M + 11.95 + 13.9M	
	-58 · 4 -58 · 9 -58 · 8 -60 · 1 -60 · 6 -60 · 8 -60 · 9	N51+50	W30•59	+ 15.9% 263 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M	

FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36066.	-61.3	N51.50	W30.59	223	21MAY75
	-60.7 -61.2	N52.04	W27.53	+ 15.9M 239 + 4.0M	
	-61.2			+ 6.0M	
	-61.7			+ 7.9M	
	-62-1			+ 9.9M	
	-62.4			+ 11.9M	
	-62.4			+ 13.9M	
	-62•7 -62•2	NEO OZ		+ 15.9M	
	-63·6	N52.06	W24.37	256	
	-62.3			+ 4.6M	
	-62.1			+ 6.0M	
	-61.5			+ 7.9M	
	-61.3			+ 9.9M + 11.9M	
	-61.4			+ 13.9M	
	-61.3			+ 15.9M	
	-61.8	N52.03	W21.16	313	
	-62.3			+ 4.0M	
	-63-1			+ 6.0M	
	-64.9			+ 7.9M	
	-64.9			+ 9.9M	
	-65•7 -66•2			+ 11.9M	
	-67.4			+ 13.9M	
	-67.4	N52.24	114.0	+ 15.9M	
	-66•9	1432+24	W18 • 05	329	
	-69.6			+ 4.6M	
	-74.2			+ 6.6M + 7.9M	
	-73.3			+ 7.9M + 9.9M	
	-71.9			+ 11.9M	
	-70.2			+ 13.9M	
	-68.7			+ 15.9M	
	-67.5	N53-01	W14.02	346	
	-66.0			+ 4.0M	
	-65.3			+ 6.CM	
	-64.8			+ 7.9M	
	-64•2 -62•8			+ 9.9M	
	-63.3			+ 11.9M	
	-63.6			+ 13.91	
	-61.8	N52.52	1.11 00	+ 15.9M	
	-64.8	1432432	W11.28	46.5	
	-63.2			+ 4.1'M	
	-65.1			+ 6.0M + 7.9M	
				T 1.30	

FRECUENCY	AMELITUDE	LATITUDE	LONGITUDE	€ULU-TIME	DATE
36000•		N52+52	W11•28	44.9	21MAY75
	-63.1				
	-63.1			+ 11. ×	
	-62.2			 1 3 • 5 ∀ 	
	-65.0			+ 1 + M	
	-63.2	N52+30	WC8 • C2	4.1%	
	-60.2			+ 4. • 1N	
	-63.7			+ 6.1 4	
	-65.4			+ 7.9×	
	-63.9			+ 9.97	
	- 55•6			+ 11.98	
	- <i>60.9</i>			+ 13.95	
	-60.6			+ 15.9M	
	-56.0	N52+01	k.C 4 • 47	435	
	-53.2			+ 4. ('M	
	- 56•5			+ 6.8W	
	-53.0			+ 7.9M	
	-53.5			+ 9.9M	
	-51.5			+ 11.97	
	-51.7			+ 13.9M	
	-50.4			+ 15.9M	
	-49 • 3	N52 • 25	WC1 • 26	452	
	-58 • 2			+ 4.0M	
	- 62•0			+ 6.CM	
	-52.0			+ 7.98	
	-55.1			+ 9.9M	
	-52 .7			+ 11.9M	
	-75.1			+ 13.9M	
	-51.5			+ 15.9M	

FREUUENCY	AMPLITUDE	LATITUPE .	LONGITUDE	ROFO-TIME	1:616
19660.					2397Y75
	~35.3	N52.37	ECC • 19	1746	C31M115
	-37.5			+ 2.6N	
	-38.9			+ 4.65	
	-40·7			+ 6.68	
	-35.5			+ 8.64	
	- 49 • 7			+ 10.68	
	-33.9			+ 12.6%	
	-32.3			+ 14.6N	
	-35 • €	N58.29	ECC • 18	1801	
	-33.6			+ 2.6M	
	-28 • 4			+ 4.6M	
	-26.6			+ 6.6	
	-22-8			+ 8.64	
	~75.5			+ 10.6M	
	-28 • 8			+ 12.6M	
	-53.4			+ 14.CM	
	-25.6	N52 • 16	W42.33	1817	
	~32.8			+ 2.68	
	-23.9			+ 4.6M	
	- 25•7			+ 6.6M	
	-29 • 1			+ 8.64	
	-26.9			+ 10.68	
	-31.5 -31.0			+ 10.€M	
	-31.6	* 11.7. • •		+ 17.64	
	-33.3	NS8-11	w66.05	18.34	
	-35•0			+ 2.(M	
	-37·5			+ 4.6M	
	-37•5 -33•8			+ 6.6M	
	-37.3			+ • • • •	
	-37 • 1			+ 10.69	
	-54.1			+ 10.6M	
	-39 • 9	N51 - 4	93 9 - 13	+ 14.68	
	-46.1	11.77	v · ▶ • 1 · ·	1 = 51	
	-40.7			+ 2.4M + 4.4M	
	-39.5			* ** * * * * * * * * * * * * * * * * *	
	-40.7			5 . / W	
	-43.6			+ 10.7M	
	- at • a			+ 12.7M	
	- a's • 5			+ 1 A • 6 N	
	$= \epsilon e^4 y \bullet \gamma_1$	N 6 9	V 1	1919	
	- in C - 1			+ 1.68	
	-44.3			+ 4.65	
	- Z ₁₁ ' • '5			+ (.18	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	EULU-TIME	DATE
19600•		N53•28	W12•21	1908	23MAY 75
	-42-1			+ 8 • 6M	
	-47.8			+ 10 + 6M	
	-43 • 4			+ 12.6M	
	-42.7			+ 14.6M	
	- 43•5	N54.10	W15.47	1925	
	-40 • 3			+ 2.6M	
	-43.8			+ 4. EM	
	-42·C			+ 6.6M	
	-44.08			+ 8.6M	
	-43 • 4			+ 10.6M	
	-42.5			+ 12.6M	
	-39 • 11			+ 14.6M	
	-41.2	N54+50	W19 • C7	1941	
	-43.5			+ 2.6M	
	-41.7			+ 4. EM	
	- Z(V) + K			+ 6.6M	
	-45 · M			+ B • 6M	
	- 42 - 5			+ 15 • 6N	
	-43.9			+ 18.6M	
	-41 • 4	AMC E (2.4	L.00. 20	+ 14.CM	
	-46.9 -45.5	N55.21	₩22•39	1958	
	#45 • 5 + 43 • ∮			+ 2.6M + 4.6M	
	-46.6			•	
	-44.0			+ (+(N + 8+6M	
	-42 · 4			+ 10.6M	
	-51.9			+ 12.6M	
	-52.3			+ 14.6	
	-47 • C	N55-44	1.26.26	1114	
	- 49 • ≥	1000044	45 Z, € ' ♥ Z € '	+ 2.68	
	-46.8			+ 4.6%	
	-11 - 3			, ,,,	
	-47.8			+ 8.68	
	-48.7			+ 10 + 6M	
	- Z: • 1			+ 10.00	
	- 47 - 17			+ 10.68	
				•	
FEECUTION	7571 1 1 (68)	LATINIE	1,05011019	501 0-11v.E.	1 -7 16
±Zifa. Ma •	- }- • €	N5747	F.C.C • 19	1745	[PYAY 75

FREQ ENCY	AMFLITUDE	LATITUDE	LONGITUDE	ZULU-1IME	DAle
s2 5 •	-81.4 -81.7 -83.0 -85.5 -82.2 -81.9	N52•27	E00.19	1745 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M	23MAY 75
	-81.2 -88.5 -31.5 -80.0 -33.1 -60.8 -81.9	N52•29	ECC•18	+ 13.2M + 15.2M 1802 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M	
	-78.6 -83.1 -83.1 -81.6 -82.4 -81.9	N52•16	₩68•33	+ 13.2M + 15.2M - 1818 + 3.3M + 5.3M + 7.3M + 9.3M	
	-81.5 -80.8 -83.5 -80.9 -84.5 -81.5	N52•11	W06•03	+ 11.3M + 13.2M + 15.2M - 1835 + 3.3M + 5.3M	
	-81.8 -80.6 -89.8 -79.8 -79.2 -80.1	N52•46	₩09•13	+ 7.3M + 9.3M + 11.3M + 13.2M + 15.2M - 1852 + 3.3M	
	-79.5 -78.5 -78.9 -78.8 -78.7 -78.0	N53•28	E12 O	+ 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M	
	-77.9 -76.3 -77.0 -76.1	1130.60	W12.21	1909 + 3.3M + 5.3M + 7.3M + 9.3M	

FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-75•7 -75•2	N53•28	W12.21	1909 + 13.2M	23MAY75
	-75.4	N54-10	W15.47	+ 15.2M 1926	
	-74.7			+ 3.3M	
	-75 • 1			+ 5.3M	
	-74.5			+ 7.3M	
	- 75•5			+ 9.3M	
	-73•7 -73•5			+ 11.3M	
	-74.0			+ 13.2M	
	-73.8	N54.50		+ 15.2M	
	-7 3•5	W24+5W	√19.07	1942	
	-73.5			+ 3.3M	
	-74.2			+ 5.3M	
	-76.8			+ 7.3M + 9.3M	
	-70.7			+ 11.3M	
	-70.4			+ 13.2M	
	-71 - 4			+ 15.2M	
	-69 •8 -73 • 3	N55.21	W22.39	1959	
	-73•3 -85•1			+ 3.3M	
	03•1			+ 5.3M	
	-70 • 1				
	-71.2			+ 9.3M	
	-71.7			+ 11.3M	
	-72 • 4			+ 13.2M	
	-71 • 6	N55 . 44	W26.28	+ 15.2M 2015	
	-71.5			+ 3.3M	
	-7 2•3			+ 5.3M	
	-72•0 -72•9			+ 7.3M	
	-72·9 -72·3			+ 9.3M	
	-74.5			+ 11.3M	
	-72.9			+ 13.2M	
				+ 15.2M	
EFECTIONO					
FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	SULU-TIME	DATE
36000.					
	-52.3	N52.27	E00•19	1745	23MAY 75
	- 55•5			1 / 45 + 4.8M	
	-57 • 1			+ 6.CM	

FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
36000•		N52.27	EUU • 19	1745	23MAY 75
	-54.2			+ 7.9M	
	-74.7			+ 9.9M	
	-54.6			+ 11.9M	
	-51.3			+ 13.9M	
	-49•0			+ 15.9M	
	-57 • 4	N52.29	E00.18	1802	
	-49 • 1			+ 4.0M	
	- 48 · 6			+ 6.0M	
	- 48 • 3			+ 7.9M	
	-48 • 9			+ 9.9M	
	-48 • 7			+ 11.9M	
	-49 • 5			+ 13.9M	
	-49 • 9	NCO 44	1:00 00	+ 15.9M 1818	
	-51.8	N52-16	w02.33	+ 4.0M	
	-54.2			+ 6.0M	
	-53.9			+ 7.9M	
	-55 • 4			+ 9.9M	
	- 55•7			+ 11.9M	
	÷55∙6			+ 13.9M	
	-57 • 1			+ 15.9M	
	-61•2 -64•5	N52-11	W06.03	1835	
	-63·6	1425.11	W100 - 173	+ 4• QM	
	-62.7			+ 6.CM	
	-64.4			+ 7.9M	
	-63.0			+ 9.9M	
	-64•5			+ 11.9M	
	-65.8			+ 13.9M	
	-65•0			+ 15.9M	
	-66.6	N52.46	W09 • 13	1852	
	-67.8			+ 4.0M	
	-70.1			+ 6.11M	
	-69.3			+ 7.9M	
	-72.2			+ 9.9M	
	-71.8			+ 11.9M	
	-71.9			+ 13.9M	
	-74.6			+ 15.9M	
	-73.9	N53•28	W12.23	1969	
	-72.9			+ 4+UM	
	-74.4			+ 6.0M	
	-76.6			+ 7.9M	
	-76.7			+ 9.9M	
	-76. 2			+ 11.98	
	-75. 8			+ 13.9M	
	-77.0			+ 15.9M	

FIELURNCY	AMPLITUDE	LATITUDE	LONGITUDE	2 ULU-11MF	DATE
36000•		N54.1(W15 • 47		238AY 75
	-76.6	N54.10	W15 • 47	1936	
	-77 • 1			+ 4.CM	
	-713 · O			+ ۥ0M	
	-79 • 1	•		+ 7.98	
	- %() • 1			+ 9.98	
	-79.3			+ 11.98	
	-80∙5			+ 13.9%	
	- 82•9			+ 15.94	
	-80.5	N54.50	1.19 . ('7	1942	
	-79.9			+ 4.5M	
	~77•7			+ 6.1 M	
	- 73 • 9			+ 7.9Y	
	- 77•2			+ 9.9M	
	- 73•4			+ 11.9%	
	-79 • 1			+ 13.9%	
	- 73.8			+ 15.9M	
	-73.6	N55.21	W22 • 39	1959	
	-73 • 4			+ 4X	
	-77.7			+ 6.LM	
	-78 • 2			+ 7.9M	
	-7 3 • 5			+ 9.9M	
	-8:1.7			+ 11.9M	
	-79.8			+ 13.9M	
	-80•4			+ 15.9M	
	-88.5	N55 • 44	v.26 • 20	2015	
	-81·6			+ 4.6M	
	-79.2			+ 6.1M	
	-7 8 -5			+ 7.98	
	-80.0			+ 9.9M	
	- 8 1.5			+ 11.9M	
	-80.9			+ 13.9M	
	-30.3			+ 15.9M	

FREQUENCY	AMI LITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
					23MAY75
19600•	-47 • 4	N56.02	W31-02	2035	
	-46.4	1130-62		+ 2.6M	
	-40·4 -51·7			+ 4.6M	
	-47.4			+ 6.6M	
	-49 • 6			+ 8.6M	
	-48.7			+ 10•€M	
	-49 • 4			+ 12.6M	
	-47.7			+ 14.6M	
	-47 • 3	N56.06	W34.58	2051	
	-47.5	1100.00		+ 2.6M	
	-49 • 2			+ 4.6M	
	-47.0			+ 6.6M	
	-48.2			+ 8.6M	
	-49 • 7			+ 10.6M	
	-46.9			+ 12.6M	
	-47.8			+ 14.6M	
	-47.2	N56.63	W38 • 48	2107	
	-50.0			+ 2.6M	
	-48 • 7			+ 4.6M	
	-49.3			+ 6+ CM	
	-50.6			+ 8.6M	
	-50 Ø			+ 10 · 'M	
	-47.8			+ 12.6M	
	-47.4			+ 14.6M	
FREQUENCY	AMFLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	PATE
r ne douter					
34525•					23MAY 75
34363	-81.6	N56.02	131.63	2036	
	-73.8			+ 3.3M	
	-73.5			+ 5.3M	
	-74.4			+ 7.3M	
	-73·B			+ 9.3M	
	-74.6			+ 11.3M	
	-71.7			+ 13.2M	
	-73.4			+ 15+2M 2052	
	-7145	N56.86	W34+58		
	-71.4			+ 3.0M + 5.3M	
	-71.8			+ 7+3M	
	-71.1			¥ 7400	

FFEGUENCY	AMFLI1UDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-71 · 0 -71 · 1 -69 · 3 -70 · 9	N56•06	W34•58	2052 + 9.3M + 11.3M + 13.2M + 15.2M	23MAY75
	-69.5 -69.3 -69.1 -68.9 -66.4 -65.7 -67.7	N56•03	W38•48	2108 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 13.2M	
FREGUENCY	AMFLITUDE	LATI TUDE	LONGITUDE	ZULU-TIME	DATE
37225•					23MAY 7 5
	-78 • 2	N56.02	W31.02	2036	
	-77.9			+ 4.0M	
	-77•9			+ 6-0M	
	-79•5 -78•7			+ 7.9M	
	-76•7			+ 9.9M	
	-77•8			+ 11.9M + 13.9M	
	-76.9			+ 15.9M	
	-78-2	N56.06	W34.58	2052	
	-79•2			+ 4.0M	
	- 78 - 5			+ 6.0M	
	-73.8		•	+ 7.9M	
	-80.2			+ 9.9M	
	- 78 • 9			+ 11.9%	
	-79 • 4 -79 • 1			+ 13.9M	
	-81.4	N56•03	W38 • 48	+ 15•9M 2168	
	-77.5	1430.63	N 30 • 40	<168 + 4•βM	
	-80.1			+ 6.6M	
	-78.5		•	+ 7.9M	
	-79.5			+ 9.9M	
	-78 • 3			+ 11.9M	
	-77 • 3			+ 13.9M	
	-78 • 7			+ 15.9M	

FAFCUENCY	ANFLITUCE	LATITUDE	LONGITUDE	EULU-TIME	DATE
19600•					23MAY 75
170004	-49.5	N55.24	V43 • 40	2129	
	-47.6			+ 2.6M	
	-49.9			+ 4. CM	
	-18.6			+ 6.6M	
	-51.1			+ K • CM	
	-51 ,			+ 10.6M	
	-51.9			+ 12.6M	
	-51 • 4		=	+ 14•6M 2146	
	-50 • €	N54 • 40	W47 • 11	* 2.6M	
	-56.0			+ 2.6M	
	- 52•7			+ 6.6M	
	- 55•9			+ 8.68	
	- 53•9			+ 1C • 6M	
	- 55.€			+ 1: • 68	
	-55.9			+ 14.6Y	
	-55.9	N/ 0 / 0	%5℃•3 1	8848	
	-5° • 5	N53 • 49	%3C • O I	+ 2.68	
	-5 -0			4 4.68	
	-57 · 3			+ (.()	
	-53.5			+ 8.00	
	-5 a • 1			+ 10.00	
	+6V+3 -56+3			+ 10•68	
	-) (• 3 - · · · 3			+ 14.6M	
	-57.3	NS2 • 37	NS2 . 154	2019	
	-54.5	1132 107		+ 2.€M	
	-57.9			+ 4.64	
	-55.9			+ 6.68	
	-5:.7			+ 8 • 68	
	-54.4			+ 10.78	
	-55.8			+ 1.5 68	
	-53.0			+ 14.6N	
	-55.	N51•33	1 5 5 6 50	12 35	
	-57.0			+ 0.68	
	-56.			+ A+ (N	
	-43.1			+ 1.6%	
	-! ← 1			+ (*	
	•• (25) • (2			* 1. */*	
	=".f. • "1			+ 1 • t ×	
	-53.3			+ 10.68	
	- to 21 + 1	N511-27	\$ 500 a 150	3.77.1	
	-1-11-1			+ 1 + 6 * 6 * 6 * 6 * 6 * 6 * 6 * 6 * 6 * 6	
	-1.6.				
	+ (x*) = (i)			+ C • C*	

19200.	FAR DENCY	AMPLITUDE	LATITUDE	LONGITUDE	SULU-TIME	DATE
-55.8 + 12.6M + 12.6V + 14.6M	193500•		NS#•27	E58•26	2251	23MAY 75
-55.1 -54.3 -53.4 N49.24 N60,60 2329 -54.7 -55.3 -4.6M -55.3 -54.8 -54.8 -59.1 -56.1 -57.2 -54.0 -57.2 -54.0 -57.2 -54.0 -57.2 -54.0 -56.7 -52.3 -55.9 -56.6 -57.3 -56.5 N46.17 N64.24 -56.5 -59.5 -61.2 -56.3 -57.3 N44.54 N66.34 -57.3 N44.54 N66.34 -57.3 N44.54 -57.3 N44.54 N66.34 -57.3 N44.54 N66.34 -57.3 N44.54 N66.34 -57.3 N44.54 N66.34 -66.1 -62.7 -61.7 -62.1 -63.4 -60.6 -63.4 -60.1 -62.7 -60.6 -61.9 -64.5 -60.6 -61.9 -62.5 -64.5		-57.7				
-54.3 -53.4 N49.24 N49.24 N40,60 -54.7 -55.3 -54.8 -54.8 -57.1 -55.3 -6.60 -57.2 -54.0 -56.1 -56.3 -58.0 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -59.5 -59.9 -61.2 -56.8 -59.5 -60.6 -59.5 -60.6 -59.5 -60.6 -59.5 -59.9 -61.2 -60.6 -60.6 -60.9 -60.1 -60.1 -60.1 -60.6 -60.6 -60.9 -60.6 -60.6 -60.9 -60.6 -60.6 -60.6 -60.6 -60.6 -60.9 -72.5 -60.6 -60.6 -60.6 -60.6 -60.6 -60.9 -72.5 -60.6 -60.6 -60.6 -60.9 -72.5 -72.5 -73.0 -74.00 -74.00 -72.5 -74.00 -7						
-53.4 N49.24 W60,60 23C9 -54.7 + 2.6M -55.3 + 4.6M -55.1 + 6.6E -59.1 + 10.6M -56.1 + 10.6M -56.7 N47.45 W62.30 2325 -52.3 + 2.6M -55.9 + 4.6M -56.6 + 6.6M -57.3 + 8.6M -56.7 + 10.6M -56.5 N46.17 W64.24 2342 -59.5 - 4.6M -59.5 - 4.6M -61.2 - 6.6M -61.2 - 6.6M -61.2 - 6.6M -61.2 - 6.6M -63.4 N44.54 W66.34 2359 -57.7 - 6.6M -63.4 N44.54 W66.34 2359 -57.3 N44.54 W66.34 2359 -57.4 - 6.6M -63.4 - 6.6M -63.6 - 8.6M -64.5 - 6.6M						
-54.7 -55.3 -54.8 -59.1 -56.1 -57.2 -54.0 -56.7 -52.3 -52.3 -52.3 -55.9 -56.6 -57.3 -56.6 -57.3 -56.7 -50.2 -58.0 -56.5 -58.0 -56.5 -58.0 -56.5 -58.0 -59.5 -59.5 -59.5 -61.2 -56.3 -59.5 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -60.6 -61.2 -60.6 -61.7 -62.1 -60.6 -61.7 -62.1 -62.7 -62.1 -63.4 -60.1 -62.7 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -64.5						
-55.3 -54.8 -59.1 -56.1 -56.1 -57.2 -54.0 -56.7 -52.3 -52.3 -55.9 -55.9 -56.6 -57.3 -56.7 -60.2 -56.5 -56.6 -56.5 -56.6 -56.6 -56.6 -56.7 -59.5 -56.6 -56.7 -59.5 -57.7 -61.2 -59.5 -59.5 -57.7 -61.2 -60.6			N49.24	we0,60		
-54.8 -59.1 -56.1 -57.2 -57.2 -54.0 -56.7 -52.3 -52.3 -52.3 -55.9 -56.6 -57.3 -56.7 -60.2 -58.0 -56.5 -59.5 -60.2 -58.0 -59.5 -60.2 -60.2 -60.2 -60.2 -60.2 -60.2 -60.3 -60.6 -60.7 -60.3 -60.6 -60.7 -60.1 -60.7 -60.1 -60.7 -60.1 -60.7 -60.1 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.6 -61.9 -60.5 -60.6 -61.9 -60.6 -61.9 -60.5 -60.6 -61.9 -60.5 -60.6 -61.9 -60.5						
-59.1						
-56.1 -57.2 -54.0 -56.7 -52.3 -52.3 -52.3 -55.6 -55.9 -56.6 -57.3 -56.7 -60.2 -56.5 -56.5 -56.5 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -57.3 -56.6 -59.5 -56.6 -59.5 -59.5 -50.9 -61.2 -56.3 -59.5 -57.3 -57.3 -57.3 -57.3 -57.3 -57.3 -57.7 -59.5 -57.7 -59.5 -57.7 -62.1 -59.4 -60.1 -60.1 -60.7 -60.1						
-57.2 -54.0 -56.7 N47.45 N47.45 N62.30 -52.3 -52.3 -55.9 -52.3 -55.9 -56.6 -57.3 -56.7 -57.3 -56.7 -58.0 -58.0 -58.0 -59.5 -59.5 -59.5 -59.5 -61.2 -56.3 -59.5 -59.9 -57.3 N44.54 N66.34 -59.5 -59.5 -59.5 -59.5 -59.5 -59.5 -59.6 -59.5 -59.6 -59.6 -59.6 -59.7 -59.7 -59.8 -59.9 -57.7 -59.5 -59.9 -57.7 -59.5 -59.1 -59.5 -59.1 -60.6 -61.7 -62.7 -62.1 -60.6 -60.6 -60.6 -60.6 -61.9 -60.6 -61.9 -62.7 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6						
-54.0 -56.7 -52.3 -55.9 -56.6 -55.9 -56.6 -57.3 -56.7 -50.2 -58.0 -58.0 -59.5 -59.5 -59.5 -59.5 -61.2 -56.3 -61.2 -56.3 -59.5 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.5 -61.2 -59.9 -61.2 -60.6 -61.7 -62.1 -62.1 -62.7 -62.1 -63.4 -60.1 -62.7 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6						
-56.7 N47.45 N62.30 2325 -52.3 + 2.6M -55.9 + 4.6M -56.6 + C.6M -57.3 + 8.6M -56.7 + 10.6M -56.5 N46.17 N64.24 2342 -56.8 + 2.6M -59.5 + 4.6M -58.9 + 6.6M -59.5 + 10.6M -59.1 + 6.6M -60.1 + 6.6M -60.6 + 6.6M -60.6 + 6.6M -60.6 + 6.6M -60.7 + 10.6M						
-52.3 -55.9 -56.6 -56.6 -57.3 -56.7 -56.7 -56.8 -58.0 -56.5 N46.17 -58.9 -61.2 -58.3 -59.5 -59.9 -61.2 -59.5 -59.5 -59.5 -59.5 -59.9 -61.2 -58.0 -59.5 -59.9 -61.2 -59.5 -59.9 -61.2 -59.5 -59.9 -61.2 -59.5 -59.9 -57.7 -68.6 -69.6 -69.6 -69.7 -61.7 -62.7 -62.7 -63.4 -60.6 -61.9 -62.7 -60.6 -61.9 -62.7 -60.6 -61.9 -62.7 -60.6 -61.9 -62.7 -60.6 -61.9 -62.7 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6						
-55.9 -56.6 -57.3 -56.7 -60.2 -58.0 -58.0 -56.5 N46.17 W64.24 -2342 -56.6 -59.5 -58.9 -61.2 -56.3 -59.5 -59.9 -57.3 N44.54 W66.34 -2359 -57.7 -59.5 -59.5 -59.6 -59.1 -6.6M -61.7 -62.7 -61.7 -62.1 -62.7 -63.4 -60.1 -62.7 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -64.5			N47 • 45	1.62.30		
-56.6 -57.3 -56.7 -60.2 -58.0 -58.0 -56.5 N46.17 W64.24 -56.8 -59.5 -59.5 -61.2 -61.2 -56.3 -59.5 -59.9 -57.3 N44.54 -66.4 -59.5 -60.6 -60.6 -60.6 -60.6 -60.6 -60.6 -61.9 -60.6 -60.6 -61.9 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6						
-57.3 -56.7 -60.2 -58.6 -58.5 N46.17 W64.24 -2342 -56.8 -59.5 N46.17 W64.24 -2342 -56.8 -59.5 -61.2 -61.2 -58.9 -61.2 -59.9 -11.6M -59.5 -59.9 -57.7 -59.5 -60.6 -61.7 -62.7 -61.7 -62.1 -63.4 -60.6 -60.6 -60.6 -60.6 -60.6 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -60.6						
-56.7 -60.2 -58.6 -58.6 -56.5 N46.17 W64.24 2342 -56.8 -59.5 -58.9 -61.2 -61.2 -56.3 -59.5 -59.9 -57.3 N44.54 W66.34 2359 -57.7 -59.5 -63.1 -62.7 -61.7 -62.1 -62.7 -63.4 -60.1 -62.7 -60.6 -61.9 -62.5 -64.5 -64.5 -64.5 -64.5						
-60.2 -58.0 -58.0 -58.5 N46.17 W64.24 2342 -56.8 -59.5 -59.5 -59.5 -61.2 -56.3 -59.5 -59.9 -59.5 -59.9 -57.3 N44.54 W66.34 2359 -57.7 -59.5 -68.1 -68.1 -68.1 -68.1 -62.7 -61.7 -62.1 -62.1 -63.4 -60.1 -63.4 -60.1 -60.6 -60.6 -60.6 -60.6 -61.9 -62.5 -64.5 -68.5						
-58.6 -56.5 N46.17 W64.24 2342 -56.5 + 2.6M -59.5 + 4.6M -58.9 + 6.6M -61.2 + 8.6M -56.3 + 10.6M -59.5 + 14.6M -59.5 + 14.6M -59.5 + 14.6M -57.3 N44.54 W66.34 2359 -57.7 + 2.6M -65.1 + 6.6M -65.1 + 6.6M -62.7 + 10.6M -62.1 + 12.6M -62.1 -63.4 -60.1 -62.7 -63.4 -60.6 -61.9 -62.5 -64.5 -64.5						
-56.5 N46.17 W64.24 2342 -56.8 + 2.6M -59.5 + 4.6M -59.5 + 6.6M -58.9 + 6.6M -61.2 + 8.6M -56.3 + 10.6M -59.5 + 12.6M -59.9 + 14.6M -57.3 N44.54 W66.34 2359 -57.7 + 2.6M -59.5 + 4.6M -59.1 + 6.6M -59.1 + 6.6M -59.1 + 10.6M -62.7 + 110.6M -62.7 + 110.6M -62.7 + 110.6M -62.1 + 2.6M -60.1 + 4.6M -60.1 + 4.6M -62.7 + 6.6M -60.6 + 8.6M -60.6 + 8.6M -61.9 + 10.6M -62.5 + 110.6M						
-56.8 -59.5 -58.9 -61.2 -56.3 -59.5 -59.5 -59.9 -59.9 -57.3 -59.9 -57.7 -65.1 -65.1 -62.7 -62.1 -59.4 -60.1 -60.6 -61.9 -60.6 -61.9 -62.5 -60.6 -61.9 -62.5 -62.5 -62.5 -62.5 -62.5 -62.5 -62.5 -62.5 -62.5 -62.6 -60.6 -61.9 -62.5 -62.5 -62.5 -62.5 -62.5 -63.4 -60.6 -61.9 -62.5 -63.4 -60.6 -61.9 -62.5 -63.6 -61.9 -62.5 -63.6 -61.9 -62.5 -63.6 -61.9 -62.5 -64.5						
-59.5 -58.9 -61.2 -61.2 -56.3 -59.5 -59.9 -59.5 -59.9 -57.3 -59.9 -57.7 -59.5 -63.1 -62.7 -61.7 -63.4 -60.1 -62.7 -60.6 -62.7 -60.6 -62.7 -60.6 -62.7 -60.6 -62.7 -60.6 -62.7 -60.6 -62.7 -60.6 -62.5 -62.5 -62.5 -63.4 -62.5 -63.4 -62.5 -63.4 -62.7 -63.4			N46 • 17	W64.24		
-58.9 -61.2 + 6.6M -56.3 + 10.6M -59.5 + 12.6M -59.9 + 14.6M -57.3 N44.54 W66.34 -2359 -57.7 + 2.6M -65.1 + 6.6M -65.1 + 6.6M -62.7 + 10.6M -62.1 + 12.6M -62.1 + 14.6M -62.1 + 14.6M -63.4 -60.1 -60.6 -60.6 -61.9 -62.5 + 10.6M -60.6 -61.9 + 10.6M + 8.6M + 6.6M						
-61.2 -56.3 -59.5 -59.9 -57.3 -57.7 -59.5 -59.5 -57.7 -63.1 -62.7 -62.1 -63.4 -60.1 -60.6 -60.6 -61.9 -62.5 -63.3 + 10.6M + 12.6M + 12.6M + 14.6M + 12.6M + 12.6M + 12.6M + 12.6M + 14.6M + 14.6M + 159.4 + 14.6M + 66.1 + 14.6M						
-56.3 -59.5 -59.9 -57.3 -57.7 -59.5 -57.7 -59.5 -65.1 -62.7 -62.7 -63.4 -60.6 -61.9 -62.5 -64.5 -59.5 -10.6M						
-59.5 -59.9 -57.3 N44.54 W66.34 2359 -57.7 +2.6M -59.5 +4.6M -65.1 +6.6M -65.1 +6.6M -62.7 +10.6M -61.9 -62.5 +4.6M +4.6M +6.6M						
-59.9 -57.3 N44.54 W66.34 2359 -57.7 + 2.6M -59.5 + 4.6M -65.1 + 6.6M -59.1 + 10.6M -61.7 + 12.6M -62.1 + 14.6M -59.4 N44.17 W69.07 15 -63.4 -60.1 + 4.6M -62.7 + 6.6M -60.1 + 4.6M -62.7 + 10.6M						
-57.3 N44.54 W66.34 2359 -57.7 + 2.6M -59.5 + 4.6M -65.1 + 6.6M -59.1 + 8.6M -62.7 + 10.6M -61.7 + 12.6M -59.4 N44.17 W69.07 15 -63.4 + 2.6M -60.1 + 4.6M -62.7 + 6.6M -60.6 + 8.6M -61.9 + 10.6M -62.5 + 10.6M -64.5						
-57.7 -59.5 -65.1 -65.1 -62.7 -61.7 -62.1 -63.4 -60.1 -62.7 -60.6 -61.9 -62.5 -63.5 -63.6 -64.5			NA CEA	1144 0 4		
-59.5 -65.1 + 6.6M -59.1 + 8.6M -62.7 + 10.6M -61.7 + 12.6M -62.1 + 14.6M -59.4 N44.17 N69.07 15 -63.4 + 2.6M -60.1 + 4.6M -60.1 + 6.6M -61.9 -62.5 + 10.6M -64.5			1444.54	W66 • 34		
-65.1						
-59.1 -62.7 -61.7 -62.1 -59.4 -63.4 -60.1 -62.7 -60.6 -61.9 -62.5 -63.5 -64.5						
-62.7 -61.7 -62.1 -59.4 N44.17 N69.07 15 -63.4 -60.1 -62.7 +6.6M -60.6 -61.9 -72.5 -63.5 +17.6M +14.6M						
-61.7 -62.1 -59.4 N44.17 W69.07 15 -63.4 -60.1 -62.7 -60.6 -61.9 -72.5 -63.5 + 17.6M + 14.6M + 14.6M + 17.6M + 17.6M + 14.6M						
-62.1 -59.4 N44.17 W69.07 15 -63.4 -60.1 + 4.6M -62.7 + 6.6M -60.6 -61.9 -72.5 -64.5 + 14.6M						
-59.4 N44.17 W69.07 15 -63.4 + 2.6M -60.1 + 4.6M -62.7 + 6.6M -60.6 + 8.6M -61.9 + 10.6M -62.5 + 10.6M -64.5 + 14.6M						
-63.4 -60.1 -62.7 + 6.6M -60.6 -61.9 -72.5 + 17.6M -64.5			NAA- 17	1669 - 07		
-60.1 + 4.6M -62.7 + 6.6M -60.6 + 8.6M -61.9 + 10.6M -62.5 + 10.6M -64.5 + 14.6M			(Add of 1)	WO 2 • 47 F		
-62.7 + 6.6M -60.6 + 8.6M -61.9 + 10.6M -62.5 + 12.6M + 14.6M						
-60.6 + 8.6M -61.9 + 10.6M -62.5 + 10.6M -64.5 + 14.6M						
-61.9 + 10.6M -62.5 + 10.6M -64.5 + 14.6M						
-62.5 + 10.6M -64.5 + 14.6M						
-64.5 + 14.6M						
			N43.57	W71 • 46		

FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	EULU-TIME	DATE
19666.	-62.1 -57.6 -56.9 -60.2 -56.5 -59.0 -62.3	N43•57	W71•46	32 + 2.6M + 4.6M + 6.6M + 8.6M + 10.6M + 12.6M + 14.6M	23MAY75
FRECUENCY	AMFLITUDE	LATITUDE	LCNGITUDE	ZULU-TIME	DATE
345 2 5•	-63.4 -63.2 -63.2 -62.6 -63.2 -62.3 -61.6 -61.8 -62.3 -61.5 -61.5	N55•24 N54•40	W43•40	2130 + 3.3M + 5.3M + 7.3M + 7.3M + 11.3M + 13.2M + 15.2N - 2147 + 3.3M + 5.3M + 7.3M + 7.3M + 9.3M	PGMAY 75
	-61.7 -61.5 -62.2 -61.6 -61.2 -62.5 -62.8 -63.4 -63.7 -63.5 -64.4 -63.9 -64.3 -65.3	N53•49 N52•37	%50•31 %53•23	+ 11.3M + 13.2M + 15.2M - 2203 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M - 2200 + 3.3M + 5.3M + 7.3M	
	+66•7 -66•9			+ 9.3M + 11.3M	

FRECUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-67.1	N52•37	W53•23	2220 + 13.2M	23MAY75
	-67 • 1			+ 15.2M	
	-65.8	N51.32	WS5.59	2236	
	~65•9			+ 3.3M	
	-64.5			+ 5.3M	
	- 62•8			+ 7.3M	
	- 63∙5			+ 9.3M	
	-63•2			+ 11.3M	
	-61.8			+ 13.2M	
	-6U·9			+ 15.2M	
	- 59 • 5	N50 • 27	₩58•26	2252	
	-53 • 6			+ 3.3M	
	-53 • 4			+ 5.3M	
	-58 • 7			+ 7 · 3M	
	~ 58 •8			+ 9.3M	
	-58 • 9 -57 • 9			+ 11.3M	
	-59·0			+ 13.2M	
	- 58 • 3	N49.24	W60 • 60	+ 15.2M	
	-57·8	N42 • C4	WQD • QD	2316	
	~59·2			+ 3.3M + 5.3M	
	-63.7			+ 7.3M	
	-62.6			+ 9.3M	
	-61.1			+ 11.3M	
	-62.8			+ 13.2M	
	-61.9			+ 15.2M	
	-60.3	N47 • 45	N62.30	2326	
	-60.6			+ 3.3M	
	~59 • 1			+ 5.3%	
	-59 - 4			+ 7.3M	
	-57 • 4			+ 9.3M	
	~ 56∙3			+ 11.3M	
	-58 • 4			+ 13.0M	
	-57.3			+ 15.0M	
	-55 • 7	N4C • 17	W64.24	2343	
	-56.8			+ 3.3M	
	-5A+5			+ 5 • 3M	
	-57 • O			+ 7•3Y	
	-58 • 6			+ 9 • 3M	
	-57·6			+ 11.3Y	
	- 56•2 -56•2			+ 13.2M	
	-56•2 -56•7	N44.54	1.66.34	+ 15.0M	
	-56.5	(V+(++)+	V. (: (1) ● . (1) 44	; 360 + 3•3M	
	-57·9			+ 5.3Y	
	\$ · • · /			* J • G	

FIELUENCY	AMILITUDE	LATITUDE	LONGITUDE	FULU-TIME	DATE
34525•	-55.3 -55.0 -53.7 -54.2 -52.9	N44•54	W66•34	2377 + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M	23YAY 7 5
	-53.8 -52.6 -52.6 -52.1 -52.0 -52.4 -50.9	N44•17	W69•67	16 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M	
	-50 · 4 - 49 · 4 - 48 · 6 - 47 · 9 - 46 · 6 - 47 · 0 - 46 · 6 - 46 · 5 - 45 · 3	N43•57	W71•46	+ 15.2M 33 + 3.3M + 5.3M + 7.3M + 9.3M + 11.3M + 13.2M + 15.2M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	EULU-TIME	DATE
37€25•	-73.8 -74.4 -73.5 -73.9 -73.5 -73.3 -79.6	N55•24	1243 • 6N	2130 + 4.0M + 6.0M + 7.9M + 9.9M + 11.4M + 13.4M + 15.4M	20VAY 75
	-71 · 4 -72 · 3 -72 · 5 -73 · 6 -72 · 6 -73 · 1 -74 · 1	N54•4('	W47•11	1147 + 24, y 22 + 6, y 23 + 7, y 23 + 11, y 24 + 11, y 24 + 11, y 24	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-72.9 -73.0 -72.7 -75.2 -74.3 -73.7 -73.5	N53•49 N53•49	W50•31 W50•31	2203 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M	23MAY75
	-71.5 -72.0 -74.6 -74.9 -75.0 -76.4 -75.3 -78.5	N52•37	W53•23	+ 15.9M 2220 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M	
	-77.1 -78.2 -74.7 -75.4 -73.4 -74.8 -72.1 -73.6	N51•32	₩55•59	2236 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M	
	-70.6 -70.7 -71.2 -70.3 -71.0 -69.2 -68.5 -68.4	N50•27	₩58•26	2252 + 4.0M + 6.0M + 7.9M + 9.9M + 11.90 + 13.9M + 15.9M	
	-67 · 2 -68 · 2 -70 · 6 -75 · 0 -72 · 9 -72 · 8 -72 · 6 -74 · 8	N49•24	₩60•60	2310 + 4.0M + 6.0M + 7.9M + 9.9M + 11.9M + 13.9M + 15.9M	
	-68 · 4 -71 · 9 -73 · 0 -72 · 1 -66 · 3	N47•45	₩62•3Ø	2326 + 4.0M + 6.0M + 7.9M + 9.9M	

FREGUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-70•4	N47 • 45	W62.30	2326	23MAY75
	-70.0			+ 11.9M	
	-66•7			+ 13.9M	
	-66•2	N46-17	W64.24	+ 15.9M	
	-66•3	14-10-11	W04•24	2343	
	-68.0			+ 4.0M	
	-68 • 4			+ 6.0M	
	-69 • 4			+ 7.9M	
	-70.5			+ 9.9M	
	-67.8			+ 11.9M	
	-67.5			+ 13.9M + 15.9M	
	-67.2	N44.54	W66.34	2360 + 13.3M	
	-65.4		***************************************	+ 4.0M	
	-68.5			+ 6.0M	
	-66.7			+ 7.9M	
	-67.7			+ 9.9M	
	-66.0			+ 11.9M	
	-67.2			+ 13.9M	
	-67.6			+ 15.9M	
	-68 • 1	N44.17	W69.07	16	
	-68.2			+ 4.0M	
	-67.3			+ 6.0M	
	-68.0			+ 7.9M	
	-67.4			+ 9.9M	
	-67.0			+ 11.9M	
	-67.7			+ 13.9M	
	-68 • 1			+ 15.9M	
	-66.9	N43.57	W71 • 46	33	
	-68 • 3			+ 4.0M	
	-66.0			+ 6.0M	
	-67.4			+ 7.9M	
	-67 • €			+ 9.9M	
	- 65•6			+ 11.9M	
	-66.7			+ 13.9M	
	-67.9			+ 15.9M	

FREQUENCY	AMPL I TUDE	LATI TUDE	LONGITUDE	ZULU-TIME	DATE
34525•					2JUNE 75
	-47.6	N4337	W76.04	1424	
	-58 • 2			+ 3.3M	
	-45.6			+ 6.0M	
	-44.0			+ 8 • 6M	
	-46.0			+ 11.3M	
	-45 • 1			+ 13.9M	
	-45 • 4	N43.02	W77.33	1440	
	-44.5			+ 3.3M	
	-45 • 4			+ 6.0M	
	-44.6			+ 8 • 6M	
	-45•5			+ 11.3M	
	-45 • 1			+ 13.9M	
	-45.5	N42+58	₩79 • 38	1456	
	-45•6			+ 3.3M	
	-46+2			+ 6.0M	
	-45•9			+ 8 • 6M	
	-46.3			+ 11.3M	
	-46•7			+ 13.9M	
	-47.0	N43-61	WB 1 - 46	1514	
	-46•9			+ 3.3M	
	-47.0			+ 6.0M	
	-46•6			+ 8.6M	
	-46.5			+ 11+3M	
	-46.3			+ 13.9M	
	-45.0	N42.54	W84.02	1530	
	-44.1			+ 3.3M	
	-42.5			+ 6.0M	
	-42.9			+ 8 • 6M	
	-41.3			+ 11.3M	
	-40-2			+ 13.9M	
	-38 • 7	N42.24	W86.33	1547	
	-37•3			+ 3.3M	
	-37.0			+ 6.0M	
	-36.0			+ 8 • 60	
	-34.6			+ 11.3M	
	-34.3			+ 13.9M	
	-34-1	N42.05	W89 • Ø6	1604	
	-33.3			+ 3.3M	
	-32.9			+ 6.0M	
	-32.4			+ 8.6M	
	-32.0			+ 11.3M	
	-31.5			+ 13.9M	
	-30.6	N41 • 46	W91 • 32	1620	
	-30.6			+ 3.3M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	 -	N41 • 46	W91•32	1620	2JUNE 75
	-30.0			+ 6.0M	ED ONE 13
	-28 • 8			+ 8.6M	
	-28 • 3			+ 11-3M	
	-26.5			+ 13.9M	
	-25 · 6	N41.26	W93.42	1637	
	-25•8 -23•1			+ 3.3M	
	-23.2			+ 6.0M	
	-20.9			+ 8 • 6M	
	-19.4			+ 11.3M	
	-17.4	N 44 . 0 4		+ 13.9M	
	-14.7	N41-24	W95•57	1653	
	-12-1			+ 3.3M	
	-6.9			+ 6.0M	
	-0.3			+ 8.6M	
	-3.6			+ 11.3M	
	-11.0	N41.22	1100	+ 13.9M	
	-13.8	1441.55	W98 • 17	1710	
	-16.8			+ 3+3M	
	-18-6			+ 6•9M	
	-20-3			+ 8 • 6M	
	-22.5			+ 11.3M	
	-24-2	N40.40	W100.31	+ 13.9M	
	-25 • 1		m100.31	1726	
	-26 • 1			+ 3-3M	
	-27.3			+ 6.0M	
	-28 • 3			+ 8 - 6M	
	-29•9			+ 11.3M	
	-30.0	N39.58	W102-44	+ 13.9M	
	-31.4			1743 + 3.3M	
	-31.8			+ 3.3M + 6.0M	
	-31.3			• 8 • 6M	
	-32.0			+ 11.3M	
	-32-7			+ 13.9M	
	-32.7 -33.1	N39 • 13	W104.58	1759	
	-35·2			+ 3.3M	
	-36.6			+ 6.0m	
	-36.7			+ 8 • 6M	
	-40.0			+ 11.3M	
	-40.5	Nag og		+ 13.9M	
	-40.2	N38 • 28	W106.59	1815	
	-41.2			+ 3-3M	
	-43.0			+ 6.0M	
	-45.3			+ 8.6M	
				+ 11.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•		N38 • 28	W106•59	1815	2J UNE 75
	-46.9			+ 13.0M	
	-48 • 3	N37·22	W109 • 05	1832	
	-48 • 8			+ 2.3M	
	- 49 • 4			+ 6.0M	
	-50.2			+ 8-6M	
	-49 • 0			+ 11.3M	
	-49.7			+ 13.9M	
	-49 • 4	N36 • 14	W110.57	1848	
	-48 • 0			+ 3.3M	
	-48 • 1			+ 6.0M	
	-47•3			+ 8.6M	
	-47 • 4			+ 11-3M	
	-46 • 4			+ 13.9M	
	-47.5	N35 · 42	W113-10	1905	
	-47.4			+ 3.3M	
	-47.2			+ 6.0M	
	-46.6			+ 8.6M	
	-47.3			+ 11.3M	
	-46.2			+ 13.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
A=00E		N4337	W76.04		2JUNE 75
37225•	-90-6	N4337	W76.04	1 425	
	-73.8			+ 4-6M	
	-64-9			+ 7.3M	
	-67.0			+ 9.9M	
	-68.7			+ 12.6M	
	-65.7			+ 15.2M	
	-66.8	N43-02	W77.33	1441 + 4.6M	
	-67 • 4				
	-68 • 4			+ 7.3M + 9.9M	
	-67.7			+ 12.6M	
	-70-2			+ 15.2M	
	-71-1			1457	
	-71-9	N42.58	W79 • 38	+ 4.6M	
	-72•7			+ 7.3M	
	-71.8			+ 9.9M	
	-71.2			+ 12.6M	
	-69 • 2			+ 15.2M	
	-68 • 7	N43-01	W81-46	1515	
	-66•7	M42.61	401740	+ 4.6M	
	-66.0			+ 7.3M	
	-64-7			+ 9.9M	
	-64•1 -62•1			+ 12.6M	
	-61.9			+ 15.2M	
	-59.9	N42.54	W84.02	1531	
	-59 • 4	11-12-0		+ 4.6M	
	-58'-1			+ 7.3M	
	-56.9			+ 9.9M	
	-56.4			+ 12.6M	
	-54.8			+ 15.2M	
	-54-7	N42.24	W86-33	1548	
	-53-6			+ 4.6M	
	-52-6			+ 7.3M	
	-53-0			+ 9.9M	
	-51+9			+ 12.6M	
	-51.5			+ 15.2M	
	-50.5	N42.05	W89 • 06	1605 + 4.6M	
	-49 • 9			+ 7.3M	
	-50-5			+ 9.9M	
	-49 • 6			+ 12.6M	
	-48 • 4			+ 15.2M	
	-48 • 8	N 44 - 44	W91.32	1621	
	-48 • 0	N41 • 46	W71436	+ 4.6M	
	-47·7			+ 7.3M	
	-48 • 3				

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-47.6 -46.9	N41•46	W91•32	1621 + 9.9M + 12.6M	2JUNE 75
	-47.2 -46.5 -46.7 -46.5	N41•26	W93•42	+ 15.2M 163B + 4.6M + 7.3M	
	-46•3 -46•4 -46•4 -46•2	N41 • 24	W95•57	+ 9.9M + 12.6M + 15.2M 1654	
	-46.0 -45.9 -47.3 -47.7			+ 4.6M + 7.3M + 9.9M + 12.6M	
	-47•6 -47•4 -47•3 -46•7	N41•22	W98•17	+ 15.2M 1711 + 4.6M + 7.3M	
	-47.9 -47.2 -47.4 -48.4	N 40 • 40	W100•31	+ 9.9M + 12.6M + 15.2M 1727	
	-48.7 -47.9 -48.5 -48.5	114040	W100031	+ 4.6M + 7.3M + 9.9M	
	-48.0 -47.3 -47.7	N39•58	W102-44	+ 12.6M + 15.2M 1744 + 4.6M	
	-47•7 -46•9 -45•9 -45•2			+ 7.3M + 9.9M + 12.6M + 15.2M	
	-43.3 -42.8 -43.0 -40.8	N39•13	W104.58	1760 + 4.6M + 7.3M + 9.9M	
	-39•3 -38•2 -38•2 -36•2	N38 • 28	W106•59	+ 12.6M + 15.2M 1816 + 4.6M	
	-35.5 -34.8 -35.3 -34.8			+ 7.3M + 9.9M + 12.6M + 15.2M	

FREQUENCY	-MPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-33•9 -33•0	N37•22 N37•22	W109 • 05 W109 • 05	1833 + 4.6M	2JUNE 75
	-32.9 -31.7 -33.8 \-35.6			+ 7.3M + 9.9M + 12.6M + 15.2M	
	-34.0 -32.8 -30.3 -31.2	N36.14	W110.57	1849 + 4.6M + 7.3M + 9.9M + 12.6M	
	-29.6 -28.6 -25.9 -27.0	N35·42	W113-10	+ 15.2M 1906 + 4.6M + 7.3M	
	-23.9 -22.1 -21.2			+ 9.9M +-12.6M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
40000					2JUNE 75
60000•	-86.0 -73.6 -58.1 -63.8 -6 9. 2	N4337	W76•04	1426 + 5.3M + 7.9M + 10.6M + 13.2M + 15.9M	
	-58 • 2 -58 • 0 -56 • 4 -56 • 5 -58 • 1 -55 • 7	N43-82	W77•33	1442 + 5.3M + 7.9M + 10.6M + 13.2M	
	-60.7 -58.3 -56.3 -54.8 -58.1	N42•58	₩79•38	+ 15.9M 1458 + 5.3M + 7.9M + 10.6M + 13.2M	
	-59·9 -56·4 -56·1 -53·8	N43-01	W81-46	+ 15.9M 1516 + 5.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
60000.		N43.Ø1	W81.46	1516	0.111110.00
	-53.7		WO 1 0 70	+ 7.9M	2JUNE 75
	-59.5			+ 10.6M	
	-53.3			+ 13.2M	
	-53.3			+ 15.9M	
	-53•1	N42.54	W84.02	1532	
	-52.3			+ 5.3M	
	-56•3			+ 7.9M	
	-55•7			+ 10.6M	
	- 54-2			+ 13.2M	
	-54.5			+ 15.9M	
	-55 • 4	N42.24	W86.33	1549	
	-51 • 1			+ 5.3M	
	-52-2			+ 7.9M	
	-54.0			+ 10.6M	
	-52.1			+ 13.2M	
	-51.2			+ 15.9M	
	-51.3	N42.05	W89.06	1606	
	- 55∙9			+ 5.3M	
	-52•4			+ 7.9M	
	-55•4			+ 10.6M	
	-52•4			+ 13.2M	
	-52•7			+ 15.9M	
	-51.5	N41 - 46	W91.32	1622	
	-51.0			+ 5.3M	
	-49 • 5			+ 7.9M	
	-47 • 4			+ 10-6M	
	-47•8			+ 13.2M	
	-45.9			+ 15.9M	
	-49 • 0	N41-26	W93.42	1 639	
	-47 • 6			+ 5.3M	
	-43•B			+ 7.9M	
	-43.0			+ 10.6M	
	-42.5			+ 13.2M	
	-41.7			+ 15.9M	
	-43.3	N41.24	W95.57	1655	
	-39 • 0			+ 5.3M	
	-39 • 4			+ 7.9M	
	-37.9			+ 10.6M	
	-39.3			+ 13.2M	
	-36.9			+ 15.9M	
	-36.5	N41 • 22	W98-17	1712	
	-36+3			+ 5.3M	
	-34.6			+ 7.9M	
	-38 ·'B			+ 10.6M	
	-36-1			+ 13.2M	
				 	

FREQUENCY	AMPLITUDE	LATITUDE	LONGI TUDE	ZULU-TIME	DATE
60000•		N41.22	W98 • 17	1712 + 15.9M	2JUNE 75
	-31.5	N40 - 40	W100-31	1728	
	-31·4 -28·9	144B+4B	#100-G.	+ 5.3M	
	-20·7 -34·1			+ 7.9M	
	-32·A			+ 10.6M	
	-27.9			+ 13.2M	
	-27 • 4			+ 15.9M	
	-28 • 2	N39 • 58	W102-44	1745	
	-34.5		·	+ 5.3M	
	-32.0			+ 7.9M	
	-51-2			+ 10.6M	
	-37.4			+ 13.2M	
	-31.3			+ 15.9M	
	-29 • 8	N39 • 13	W104.58	1761	
	-31.9			+ 5.3M	
	-33-3			+ 7.9M	
	-37.6			+ 10 - 6M	
	-37.0			+ 13.2M	
	-40.9			+ 15.9M	
	-41.0	N38 • 28	W106.59	1817	
	-40.7			+ 5.3M	
	-38 • 1			+ 7.9M	
	-43.5			+ 10.6M	
	-42•9			+ 13.2M	
	-41 • 1			+ 15.9M	
	-44.8	N37.22	W109 - 05	1834	
	-47.2			+ 5.3M + 7.9M	
	-41.8			+ 7.9M + 10.6M	
	-43-8			+ 13.2M	
	-43-9			+ 15.9M	
	-48 • 4	NO. 14	W110-57	1850	
	-50-4	N36-14	M110.21	+ 5.3M	
	-49 • 3			+ 7.9M	
	-53.0			+ 10.6M	
	-52·8 -50·1			+ 13.2M	
	-52·1			+ 15.9M	
	-51·2 -53·7	N35 • 42	W113-10	1907	
	-53·7 -57·4	34 • CU71	#11J-10	+ 5.3M	
	-57•6 -52•7			+ 7.9M	
	-52• / -59•Ø			+ 10.6M	
	T			+ 13.2M	
	-55-3				

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•					3JUNE 75
•	-82.0	N33 • 48	W117-20	1715	
	-81 • 1			+ 3.3M	
	-78•5			+ 6.0M	
	-83•4			+ 8 • 6M	
	-79 • 8			+ 11.3M	
	-84.2			+ 13.9M	
	-82•2	N35.00	W118 • 41	1731	
	-81.2			+ 3.3M	
	-78 • 6			+ 6.0M	
	-83•2			+ 8.6M	
	-87•3			+ 11.3M	
	-88.2			+ 13.9M	
	-89•7	N36 • 46	W119.12	1747	
	-90·0			+ 3.3M	
	-88 • 4			+ 6.0M	
	-92-3			+ 8.6M	
	-84.5			+ 11.3M	
	-88•8			+ 13.9M	
	-92.7	N38 • 28	W119.29	1805	
	-90.7			+ 3.3M	
	-92.6			+ 6.0M	
	-87 • 8			+ 8 • 6M	
	-88 • 2			+ 11.3M	
	-92.5			+ 13.9M	
	-93-4	N40.05	W119 • 47	1822	
	-93.5			+ 3.3M	
	-92•2			+ 6.0M	
	-93.7			+ 8 · 6M	
	-91.3			+ 11.3M	
	-92-3			+ 13.9M	
	-93-6	N41 • 46	W120-16	1839	
	-92.9			+ 3.3M	
	(-85.3			+ 6.0M	
	-89 • 3			+ B • 6M	
	-92.6			+ 11.3M	
	-88 - 1			+ 13.9M	
	-87•8	N43-21	W120-28	1855	
	-84.7			+ 3.3M	
	-88 • 1			+ 6.0M	
	-87 • 3			+ 8 • 6M	
	-84-3			+ 11.3M	
	-91.5			+ 13.9M	
	-89 • 6	N44.55	W121-21	1912	
	-90.3			+ 3.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-91•4	N44.75	W121.21	1912 + 6.0M	3JUNE 75
	-91·9			+ 8.6M	
	-89.0			+ 11.3M	
	-90.7			+ 13.9M	
	-88 • 6	N46.30	W121.57	1929	
	-93-2			+ 3.3M + 6.0M	
	-90-4			+ 8.6M	
	-77.0			+ 11.3M	
	-92-3			+ 13.9M	
	-84-4		U100 50	1946	
	-83-9	N48 • 02	W122.52	+ 3.3M	
	-73.3			+ 6.0M	
	-82 · 1			+ 8.6M	
	-93-9			+ 11.3M	
	-90-9			+ 13.9M	
	-89+7	N49 • 1 4	W124-23	2002	
	-90•4 -89•7	(442414		+ 3.3M	
	-88•7			+ 6.0M	
	-87•6			+ 8.6M	
	-88 • 4			+ 11.3M	
	-89.5			+ 13.9M	
	-87.9	N50-12	W126.09	2018	
	-93.6			+ 3-3M	
	-89.0			+ 6.0M + 8.6M	
	-91-7			+ 8.0m + 11.3M	
	-89-7			+ 13.9M	
	-90-3			2035	
	-89-0	N51 • 27	W127-32	+ 3.3M	
	~68 • 0			+ 6.0M	
	-70-1			+ B • 6M	
	-65-5			+ 11-3M	
	-66-8			+ 13-9M	
	-67-5	N52-52	W128.51	2051	
	-67-3	72.254	*****	+ 3.3M	
	-68 - 1			+ 6.0M	
	-67•6 -65•5			+ 8 • 6M	
	-66-0			+ 11.3M	
	-68 - 6			+ 13.9M	
	-69-0	N54-14	W130.25	2107	
	-69.0			+ 3.3M	
	-68 • 4			+ 6.0M	
	-71-3			+ 8 • 6M	
	-69-2			+ 11-3M	

District

F1% GUILHOY	AMPLITUDE	LATITUE	L'ONG L'EN	144 may 184	F .11
3450%		N54•14	£130 √ 95	21:7	egroma:
	-70•4 -69•8	MSS • 45	114.5.6	4 10.53	
	~72•1	1,554/15	M132449	2195	
	-71.6			♦ 1 € 1)	
	-72.8			+ 6.6%	
	-71.7			+ 11.3%	
	-71.6			4 10.93	
	-71.9	N57.26	1.134.15	2141	
	-67.8			* 3, g	
	-60.3			+ (
	+(C)+((1 8,00	
	+C8 • €			P 12 . 34	
	*67.5			10.00	
	-65.5	N59•12	1136.65	51.5	
	-64.7			+	
	-66-1			* (16)	
	-64.1			Φ − Γ• C v.	
	-66.2			11.58	
	+64+3 +59+8	N61 • 1 ?		+ 10.97	
	-02•6 -61•S	1/101015	1330 6 7	8.315	
	-61.9			न ३.८. न <i>६.</i> ८)	
	• (5·9			4 6.01 4 7.61	
	-66-1			# 13.08	
	-6463			4 13.5M	
	-/1-/	N62 • 41	V141 • C7	8-1	
	~ 59•3			+ 0.00	
	-60.5			4 (115	
	-61-1			+ 8 · 48	
	-59.5			* 11,111	
	±59 • A			* 13-27	
FLECTERCY	ANTENTODE	LATTUDE	LONCITURE	£Uno-1 (F	be
37825.					3JUJEV5
	-21 • 1	N33+48	W117.20	1717	10.00
	-26.8			4 4.07	
	-31.2			4 7.0%	
	=3<.€			4 5 - 17	
	- 82•€			* 1.5 CV	
	-21.6			+ 15.00	
	-20.8	N35•C@	W118 • 41	1735	
	-2 - 4 -05 7			* 4. C7	
	÷25•7 ÷25•5			+ 7.3td	
	-26.6			* Y*9h	
	-10.0			* 1 • 6% * 4 • 6%	
	-31.6	N364	(119.19	1765	
	₹- -		• • • •		
		A F 7			

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-32•0 -33•1 -35•4 -39•4	N36•46	W119•12	1748 + 4.6M + 7.3M + 9.9M + 12.6M	3JUNE 75
	-36.7 -35.1 -35.4 -35.1 -35.4 -35.6	N38•28	W119•29	+ 15.2M 1806 + 4.6M + 7.3M + 9.9M + 12.6M	
	-37 • 4 -35 • 4 -34 • 9 -35 • 0 -33 • 9 -35 • 7	N40•05	W119•47	+ 15.2M 1823 + 4.6M + 7.3M + 9.9M + 12.6M	
	-35.9 -37.2 -36.8 -37.3 -37.8 -39.2	N41 • 46	W120•16	+ 15.2M 1840 + 4.6M + 7.3M + 9.9M + 12.6M	
	-39 · 6 -40 · 9 -41 · 5 -42 · 1 -43 · 4	N43-21	W120•28	+ 15.2M 1856 + 4.6M + 7.3M + 9.9M	
	-45.8 -45.1 -45.8 -46.8 -48.6 -49.4	N44•55	W121•21	+ 12.6M + 15.2M 1913 + 4.6M + 7.3M + 9.9M	
	-49.0 -49.7 -49.9 -51.5 -50.3 -51.0	N46•30	W121.57	+ 12.6M + 15.2M 1930 + 4.6M + 7.3M + 9.9M	
	-50-7 -49-8 -50-2 -51-1 -50-6 -54-1	N 48 • Ø2	W122•52	+ 12.60 + 15.2M 1947 + 4.6M + 7.3M + 9.9M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-53-1	N48 • 62	W122.52	1947 + 12•6M	3JUNE 75
	-59 • 8			+ 15.2M	
	-54-4	N49 • 1 4	W124.23	2003	
	-55 • 3			+ 4.6M	
	-54-9			+ 7.3M	
	-57 • 4			+ 9.9M	
	-57·Ø			+ 12.6M	
	-57.0	NEG 40	11104 00	+ 15.2M	
	-55.7	N50-12	W126.09	2019	
	-54. 3			+ 4.6M + 7.3M	
	-56•1 -57•0			+ 7.3M + 9.9M	
	-55•8			+ 12.6M	
	-53•6 - 53•4			+ 15.2M	
	-57.0	N51 • 27	W127.32	2036	
	÷55•1	N31127	W127-02	+ 4.6M	
	-55•6			+ 7.3M	
	-54-1			+ 9.9M	
	-54.7			+ 12.6M	
	-54.8			+ 15.2M	
	-56.5	N52+52	W128.51	2052	
	-59.3			+ 4.6M	
	-57.6			+ 7.3M	
	-61-1			+ 9.9M	
	-60.4			+ 12.6M	
	-58 - 6			+ 15.2M	
	-56.8	N54-14	W130-25	2108	
	-55 • 4			+ 4.6M	
	-54-8			+ 7 · 3M	
	-56.0			+ 9.9M	
	-56-2			+ 12.6M	
	-57.6			+ 15.2M	
	-58 - 3	N55 - 45	W132-09	2126	
	-58 • 6			+ 4.6M	
	-59•9			+ 7.3M	
	-59•2			+ 9.9M	
	-62.3			· 12.6M	
	-61.2			► 15.2M	
	-62-8	N57+26	W134.05	2142	
	-64-0			+ 4-6M	
	-64-0			+ 7.3M	
	-64-1			+ 9.9M	
	-66-3			+ 12.6M	
	-68 - 1	N = 0 . 40	114.04.00	+ 15.2M	
	-68 • 4	N5° • 12	W136-03	2160	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-71.9 -70.6 -68.8 -71.0 -73.6	N59•12	W136•Ø3	2160 + 4.6M + 7.3M + 9.9M + 12.6M	3JUNE 75
	-69 · 3 -69 · 0 -69 · 5 -71 · 0 -68 · 9 -68 · 8	N61•02	₩138•Ø7	+ 15.2M 2216 + 4.6M + 7.3M + 9.9M + 12.6M + 15.2M	
	-69.5 -70.1 -68.8 -69.0 -68.8 -69.2	N62•41	W141.67	2232 + 4.6M + 7.3M + 9.9M + 12.6M + 15.2M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
69000.	~68•5 ~63•9 ~77•0 ~72•6 ~82•8	N33•,48	W117•20	1717 + i.3M + 7.9M + 10.6M + 13.2M	3JUNE 7 5
	-82.8 -74.6 -77.3 -64.1 -68.4	N35•00	W118•41	+ 15.9M 1733 + 5.3M + 7.9M + 10.6M	
	~66•3 ~64•3 ~65•8 ~89•4 ~63•3 ~67•9 ~60•7	N36•46	W119•12	+ 15.9M 1749 + 5.3M + 7.9M + 10.6M + 13.2M + 15.9M	
	-64·1 -70·7	N38 • 28	W119.29	1807 + 5.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
68888.	-75•5 -66•1 -75•3	N38 • 28	W119•29	1807 + 7.9M + 10.6M + 13.2M	3JUNE 75
	-75·9 -75·3 -72·3 -70·2 -65·5	N40.05	W119•47	+ 15.9M 1824 + 5.3M + 7.9M + 10.6M	
	-66.5 -66.5 -63.6 -66.6 -68.1	N41 • 46	W120.16	+ 13.2M + 15.9M 1841 + 5.3M + 7.9M	
	-58.7 -59.8 -58.9 -66.3 -60.2	N43•21	W120•28	+ 10.6M + 13.2M + 15.9M 1857 + 5.3M	
	-58 • 2 -60 • 2 -58 • 3 -62 • 6 -60 • 3	N44•55	W121•21	+ 7.9M + 10.6M + 13.2M + 15.9M	
	-58.5 -59.1 -58.8 -58.2 -58.3			+ 5.3M + 7.9M + 10.6M + 13.2M + 15.9M	
	-63.0 -60.1 -67.7 -62.1 -59.4	N46•30	W121.57	1931 + 5.3M > 7.9M + 10.6M + 13.2M	
	-61 • 3 -68 • 4 -61 • 4 -61 • 7 -60 • 4	N48•02	W122.52	+ 15.9M 1948 + 5.3M + 7.9M + 10.6M	
	-64.2 -60.5 -65.9 -59.7 -61.4	N 49 • 1 4	W124.23	+ 13.2M + 15.9M 2004 + 5.3M + 7.9M	
	-59·9 -62·0			+ 10.6M + 13.2M	

FREQUENCY	AMPLITUDE	LATITUDE	LONG! TUDE	ZULU-TIME	DATE
60000.		N49 • 1 4	W124.23	2004	
	-63.0		F. 2-1-2-0	+ 15.9M	3JUNE 75
	-64.0	N50-12	W126.09	2020	
	-65 • 4		*********	+ 5.3M	
	-69•6			+ 7.9M	
	-72.8			+ 10.6M	
	-68 • 3			+ 13.2M	
	-72.2			+ 15.9M	
	-77.0	N51-27	W127.32	2037	
	-71.9			+ 5.3M	
	-75-8			+ 7.9M	
	-73.9			+ 10.6M	
	-75 - 3			+ 13.2M	
	-75-8			+ 15.9M	
	-76·4	N52.52	W128.51	2053	
	-75 · 1			+ 5.3M	
	-75•8 -74•5			+ 7.9M	
	-80.0			+ 10.6M	
	-76·4			+ 13.2M	
	-81 • 1	NE A A A		+ 15.9M	
	-78.5	N54-14	W130.25	2109	
	-82.8			+ 5.3M	
	-84-1			+ 7.9M	
	-81.0			+ 10.6M	
	-80.5			+ 13.2M	
	-84.3	N55 • 45	W120 00	+ 15.9M	
	-82-1	1100140	W132-09	2127	
	-88 • 8			+ 5.3M	
	-85.0			+ 7.9M	
	-93•7			+ 10.6M	
	-88 • 8			+ 13.2M	
	-88 - 7	N57.26	W134-05	+ 15.9M 2143	
	-9 2•5			+ 5.3M	
	-88 - 5			+ 7.9M	
	-93.0			+ 10.6M	
	-88 - 4			+ 13.2M	
	-88 • 4			+ 15.9M	
	-91-4	N59.12	W136.03	2161	
	-92.3			+ 5.3M	
	-89 • 8			+ 7.9M	
	-90-2			+ 10.6M	
	-90.0 -8j.2			+ 13.2M	
	-63 • 2 -85 • 4	1144 5-		+ 15.9M	
	-87•8	N61-02	W138 • 07	2217	
	3,00			+ 5.3M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
68000•	-86•3 -87•6 -91•6	N61.02	W138•07	2217 + 7.9M + 10.6M + 13.2M	3JUNE 75
	-90.6 -84.8 -87.4 -90.1 -87.6	N62•41	W141.07	+ 15.9M 2233 + 5.3M + 7.9M + 10.6M	
	-92•4 -91•1			+ 13.2M + 15.9M	

FREGUENCY	AMPLI1UDE	LATITUCE	LONGITUDE	ZULU-TIME	DATE
34525•					4JUNE 75
•	-5 9 • 5	N64-18	W146.22	1905	-00ME 13
	-58 - 5			+ 3.3M	
	-58 • 9			+ 5.0M	
	-59.3			+ 8.6M	
	- 59•7			+ 11.3M	
	-58 • 7			+ 13.9M	
	-59 • <i>6</i>	NE3-18	W143.16	1921	
	-59 • 4			+ 3.3M	
	-59 • 3			+ 6.0M	
	-59 • 1			+ 8.6M	
	-57.8			+ 11.3M	
	-58 • 8			+ 13.9M	
	-59•8	N62.17	W139 · 44	1937	
	-59 • 1			+ 3.3M	
	-59•2			+ 6.0M	
	-58 • 7			+ 8.6M	
	-58 - 7			+ 11.3M	
	-58 - 7			+• 13.9M	
	-59.9	N61.06	W136.22	1954	
	-58 - 5			+ 3.3M	
	-57 • 8			+ 6.0m	
	-58 • 2			+ 8.6M	
	-59 • 3			+ 11.3M	
	-59 • 1			+ 13.9M	
	-61-0	N60.58	W132.34	2011	
	-60.9			+ 3.3M	
	-63.0			+ 6.0M	
	-61-4			+ 8.6M	
	-63-3			+ 11.3M	
	-62.8			+ 13.9M	
	-61.9	N60.07	W128 • 29	2027	
	-61.7			+ 3.3M	
	-61 • 1			+ 6.0M	
	-60.4			+ 8 • 6M	
	-57-8			+ 11.3M	
	-56.6	NEO 10		+ 13.9M	
	-54.9	N59 • 18	h124.40	2038	
	-53·4 -50.7			+ 3.3M	
	-52·7			+ 6.6M	
	-52•2 -51•1			+ 8.6M	
	-50·6			+ 11 · 3M	
	-49.9	NEG 40	5.101 Oc	+ 13.9M	
	-49.2	N58 • Ø9	W121.20	2100	
	-47.6			+ 3.3M	

FREGUENCY	AMFLITUDE	LATITUDE	LONGITUDE	SULU-11ME	DAIE
34525•		N58 • 09	W121.20	5100	4JUNE 75
	-48 - 1			+ 6.0M	
	-48 - 2			+ 8.6M	
	-48 • 6			+ 11.3M	
	-46.5			+ 13.9M	
	-47 • 0	N56.42	W118-24	2117	
	-46.8			+ 3.3M	
	-46 • 1			+ 6.0M	
	-45 • 7			+ 8.6M	
	-45 • 6			+ 11.3M	
	-45 • 0			+ 13.9M	
	-44-3	N55-02	W115 • 49	2133	
	-44-1			+ 3.3M	
	-45+3			+ 6.0M	
	-44-8			+ 8.6M	
	-44-7			+ 11.3M	
	·44•5	450 00		+ 13.9M	
	-43.7	N53-00	W113.24	2151	
	-44.£ -43.8			+ 3.3M	
	-45.7			+ 6.0M	
	-46 • 4			+ 8 · 6M	
	-46.3			+ 11.3M	
	-48 • 8	N50.58	W111.32	+ 13.9M 2208	
	-49 • 6	1438.30	W111.35	+ 3.34	
	-50 - 1			+ 6.04	
	-46.7			+ 8.6M	
	-46.5			+ 11.3M	
	-46.6			+ 13.9M	
	-47.8	N48 • 51	W109.58	2224	
	-47.4	(,-0.0.	W107-30	+ 3.3M	
	-45.9			+ 6.0	
	-45.7			+ 8.6	
	-45.0			+ 11.3M	
	-42.9			+ 13.9M	
	-42.0	N47 · 12	W107-19	2240	
	-39 • 6			+ 3.3M	
	-38 - 7			+ 6.0M	
	- 38 - 3			+ 8.6M	
	-36-4			+ 11.3M	
	-35 - 7			+ 13.9M	
	-35.5	N45 - 49	W104-27	2257	
	-35.9			+ 3.3M	
	-35.0			+ 6.0M	
	-33.5			+ 8.6M	
	-34-1			+ 11.3M	

FREGUENCY	AMPLITUDE	LATITUDE	LONGITUDE	2ULU-TIME	DATE
34525•		N45 • 49	W104.27	2257	4JUNE 75
	-32-6			+ 13.9M	
	-31 - 1	N45-09	W101.27	,2314	
	-29 • 6			+ 3.3M	
	-29 • 3			+ 6.0M	
	-28 - 1			+ 8.6	
	-27-0			+ 11.3M	
	-25.6			+ 13.9M	
	-23.2	N43-16	h99 • 32	2330	
	-22-7			+ 3.3M	
	-20-9			+ 6.0M	
	-18-7			+ 8 • 6M	
	-16-1			+ 11.3M	
	-12-2	NA1 24		+ 13.9M	
	-5·3 -4·4	N41 · 36	W97.53	2346	
	-7.7			+ 3.3M	
	-18.7			+ 6.0M + 8.6M	
	-16.6			+ 11.3M	
	-19 - 4			+ 13.9M	
	-22 • 4	N41 - 18	W95.07	3	
	-23.2		W73.D1	+ 3.3M	
	-25 - 1			+ 6.0M	
	-27.3			+ 8.6M	
	-28.0			+ 11 • 3M	
	-29 • 4			+ 13.9M	
	-33-5	N41 - 30	W91.54	19	
	-30-3			+ 3.3M	
	-39 • 2			+ 6.0M	
	-38 • 2			+ 8.6M	
	-32 • 8			+ 11.3M	
	-43.7			+ 13.9M	
	-35.0	N41.32	W89 • 00	35	
	-35 • 8			+ 3.3M	
	-37.2			+ 6.0M	
	-36.9			+ 8 • 6M	
	-37.9			+ 11.3M	
	-39.0			+ 13.9M	
	-39 • 2	N41.02	W86-19	52	
	-40-2			+ 3.3M	
	-41.5			+ 6.8M	
	-41.8			+ 8.6M	
	-42.0			+ 11.3M	
	-43·1	NA4 24	1.00	+ 13.9M	
	-42·9 -43·5	N41-04	W83.21	109 + 3.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-IIME	DATE
34525.	-43.3 -42.7 -42.3	N41-04	₩83•21	109 + 6.0M	4J UNE 75
	-43.2 -43.3 -43.3 -43.7	N40•55	₩8 0• 28	+ 8.6M + 11.3M + 13.9M 125 + 3.3M	
	~43·7 -42·8 -44·1 -46·7	N41.50	1/20 A-	+ 6.00 + 8.6M + 11.3M + 13.9M	
	-50.9 -50.8 -54.7 -44.1 -43.8		¥77·18	145 + 3.3M + 6.0M + 8.6M	
	-43+6			+ 11.3M + 13.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	70•3 -70•2 -70•2	N64.18 N64.18	W146.22 W146.22	1906 + 4.6M + 7.3M	4JUNE 75
	-70.0 -70.2 -68.1 -68.4 -71.6	N63•18	W143•16	+ 9.9M + 12.6M + 5.2M 1922 + 4.6M	
	-71.9 -70.5 -70.9 -71.7			+ 7.3M + 9.9M + 12.6M + 15.2M	
	-74.8 -74.8 -76.9 -74.5 -73.0	N62•17	W139•44	1938 + 4.6M + 7.3M + 9.9M + 12.6M	
	-71.7 -72.1 -68.4 -69.7 -69.3	N61.06	W136•22	+ 15.2M 1955 + 4.6M + 7.3M + 9.9M	
	-66.5 -66.0 -66.3 -66.4 -67.6	N60·28	W132•34	+ 12.6M + 15.2M 2012 + 4.6M + 7.3M	
	-68 • 4 -66 • 7 -66 • 3 -62 • 0 -62 • 2	N60.07	W128•29	+ 9.9M + 12.6M + 15.2M 2028 + 4.6M	
	-62•3 -65•6 -67•5 -63•8	NEO 40		+ 7.3M + 9.9M + 12.6M + 15.2M	
	-61.7 -60.0 -58.1 -57.1 -60.2	N59•18	W124-46	2039 + 4.6M + 7.3M + 9.9M + 12.6M	
	-60•4 -58•9 -59•1 -58•6	N58 • 09	Wi21.20	+ 15.2M 2101 + 4.6M + 7.3M	

FREGUENCY	AMPL 1 TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•		N58 • Ø9	W121.20	2101	4JUNE 75
	-58 • 9			+ 9.9M	
	-57.9			+ 12.6M	
	-59 • Ø			+ 15.2M	
	-58 - 7	N56.42	W118 • 24	2118	
	-57.5			+ 4.6M	
	-55-9			+ 7.3M	
	-55 • 6			+ 9.9M	
	-54•3 -55•9			+ 12.6M	
	-54·7	NEE GO		+ 35.2M	
	-55 • 1	N55.02	al 15 • 49	2134	
	-52-0			+ 4.6M	
	-51.6			+ 7.3M	
	-52-1			+ 9.9M	
	-52-4			+ 12.6M	
	-52•8	N53.00	L14.1.2. O.A.	+ 15.2M	
	-50-6	1433466	W113.24	2152	
	-48 • 8			+ 4.6M	
	-49 • 3			+ 7.3M	
	-48 • 2			+ 9.9M	
	-47.7			+ 12.6M	
	-47 • 4	N50.58	W111.32	+ 15.2M 2209	
	-48 • 0		W111102	+ 4.6M	
	-49 • 6			+ 7.3M	
	-53-2			+ 9.9M	
	-51.9			+ 12.6M	
	-53-5			+ 15.2M	
	-52•9	N48 • 51	W109.58	2225	
	-57.2			+ 4.6M	
	-61-1			+ 7.3M	
	-70-8			+ 9.9M	
	-75•9			+ 12.6M	
	-72-3			+ 15.2M	
	-72•0	N47.12	W107.19	2241	
	-73-1			+ 4.6M	
	-72-7			+ 7.3M	
	-59 • 2			+ 9.9M	
	-58 - 4			+ 12.6M	
	-53-3			+ 15.2M	
	-50-3	N45 • 49	W104.27	2258	
	-48 • 6			+ 4.6M	
	-52-9			+ 7.3M	
	-52-5			+ 9.9M	
	-51 · 4			+ 12.6M	
	-50-6			+ 15.2M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•		N45 • 09	W101-27		4JUNE 75
	- 75•2	N45.09	W101 - 27	2315	
	-57• 8			+ 4.6M	
	-60.9			+ 7.3M	
	-62•7			+ 9.9M	
	-61.9			+ 12.6M	
	-61.8			+ 15.2M	
	-60•7	N43-16	W99•32	2331	
	-61 • 1			+ 4.6M	
	-60.8			+ 7.3M	
	-62.6			+ 9.9M	
	-66•0			+ 12.6M	
	-67 • 3			+ 15.2M	
	-67 • 1	N41.36	₩97•53	2347	
	-48 • 0			+ 4.6M	
	-46 • 7			+ 7.3M	
	-47-5			+ 9.9M	
	-47 - 4			+ 12.6M	
	-47 - 1			+ 15.2M	
	-56+4	N41 • 18	W95 • 07	4	
	-48 • 1 -48 • 4			+ 4.6M	
	-48 • 4 -48 • 1			+ 7.3M	
	-48 • 6			+ 9.9M	
	-50.0			+ 12.6M	
	-49 • 4	N41 - 30	NOO EA	+ 15.2M	
	-48 • 6	N41 • 30	W93.54	20	
	-48 • 3			+ 4.6M	
	-51.8			+ 7.3M	
	-54.9			+ 9.9M + 12.6M	
	-53.6			+ 15.2M	
	-53•3	N41 · 32	W89 • 00	36	
	-53.0	11-11-02	WO 7 * DD	+ 4.6M	
	-55.4			+ 7.3M	
	-56.0			+ 9.9M	
	-55 • 4			+ 12.6M	
	-53-7			+ 15.2M	
	-56•3	N41.02	W86.19	53	
	-55 • 4		#3001 <i>)</i>	+ 4.6M	
	-56+3			+ 7.3M	
	-57.1			+ 9.9M	
	-59 • 2			+ 12.6M	
	-55-1			+ 15.2M	
	-61-8	N41.04	W83-21	110	
	-61.6	-		+ 4.6M	
	-62.0			+ 7.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	SULU-TIME	DATE
37225•	-59•7 -58•9	N41.04	W83•21	110 + 9.9M + 12.6M	4JUNE 75
	-62•7 -62•7	N40.55	W80.28	+ 15.2M 126	
	-63.7	1170.55	#0D-20	+ 4.6M	
	-57-9			+ 7.3M	
	-58 - 3			+ 9.9M	
	-54-9			+ 12.6M	
	-60•9	50		+ 15.2M	
	-63•7 -64•7	N41.50	W77 • 10	146 + 4.6M	
	-71.9			+ 7.3M	
	-65.5			+ 9.9M	
	-59.8			+ 12.6M	
	-61-3			+ 15.2M	
FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	2ULU-TIME	DATE
60000•					4JUNE 75
	-86.3	N64-18	W146-22	1907	
	-82,4			+ 5.3M	
	-88-5			+ 7.9M	
	-92•4			+ 10.6M	
	-89•1 -86•6			+ 13.2M + 15.9M	
	-88.5	N63.18	W143-16	1923	
	-91.0	1100110	W143*10	+ 5.3M	
	-86.2			+ 7.9M	
	-92.5			+ 10.6M	
	-88•2			+ 13.2M	
	-86-8			+ 15.9M	
	-86-1	N62-17	W139 • 44	1939	
	-83•9 -81•3			+ 5.3M	
	-89 • 1			+ 7.9M	
	-83-6			+ 10.6M + 13.2M	
	-83.8			+ 13.2M + 15.9M	
	-80.8	N61-06	W136.22	1956	
	-81.4	-		+ 5.3M	
	-82.0			+ 7.9M	
	-85-1			+ 10.6M	

FREQUENCY	AMFLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
66000.		N61.26	W136.22	1956	4JUNE 75
	-87.5			+ 13.2M	
	-83.3	N/40 00	0100.04	+ 15.9M 2013	
	-90•7 -84•5	N66.58	W132.34	- 2013 + 5.3M	
	-80.8			+ 7.9M	
	-78.3			+ 10.6M	
	-74.6			+ 13.2M	
	-74.7			+ 15.9M	
	-74.5	N60.07	W128 • 29	2029	
	-74.6			+ 5.3M	
	-67.7			+ 7.9M	
	-66.8			+ 10.6M	
	-66.3			+ 13.2M	
	-61.9			+ 15.9M	
	-60-2	N59 • 18	W124-40	2040	
	-66.7			+ 5.3M	
	-59•9			+ 7.9M	
	-62.0			+ 10.6M	
	-58 • 5			+ 13.2M	
	-65 • 1			+ 15.9M	
	-57.9	N58 • 09	W121.20	2102	
	-56.9			+ 5.3M	
	-56•7 -59•6			+ 7.9M + 10.6M	
	-59 • 6 -53 • 9			+ 13.2M	
	-58 • 6			15.9M	
	-53 • 4	N56.42	W118 • 24	2119	
	-55 • 4	1130142	W110-54	+ 5.3M	
	-52.2			+ 7.9M	
	-53.0			+ 10.6M	
	-52.7			+ 13.2M	
	-52-2			+ 15.9M	
	-52.0	N55.02	W115 • 49	2135	
	-51.2			+ 5.3M	
	-56.5			+ 7.9M	
	-50.8			+ 10.6M	
	-53.7			+ 13.2M	
	-49. 2			+ 15.9M	
	-50•8	N53.00	W113.24	2153	
	-50-2			+ 5.3M	
	-51.9			+ 7.9M	
	-51.5			+ 10.6M	
	-56 - 1			+ 13.2M	
	-51·8 -50·3	415.6		+ 15.9M	
	-50.3	N50.58	W111-32	2210	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
60000•	-48 •5 -48 • 6 -47 • 8 -49 • 9	N50•58	W111•32	2210 + 5.3M + 7.9M + 10.6M + 13.2M	4JUNE 75
	-55 · 4 - 49 · 7 - 49 · 3 - 48 · 0 - 47 · 8 - 47 · 8	N 48 • 5 1	W109•58	+ 15.9M 2226 + 5.3M + 7.9M + 10.6M + 13.2M	
	-44.9 -47.1 -47.7 -43.4 -47.8	N47-12	W107•19	+ 15.9M 2242 + 5.3M + 7.9M + 10.6M	
	-52 · 1 -65 · 8 -50 · 2 -63 · 5 -64 · 3	N 45 • 49	W104.27	+ 13.2M + 15.9M 2259 + 5.3M + 7.9M + 10.6M	
	-56.3 -48.0 -45.3 -50.5 -54.8 -58.9	N45•09	W101•27	+ 13.2M + 15.9M 2316 + 5.3M + 7.9M + 10.6M	
	-70.9 -68.4 -54.1 -55.3 -51.1 -50.2	N43-16	₩99•32	+ 13.2M + 15.9M 2332 + 5.3M + 7.9M	
	-52.7 -48.6 -47.1 -44.0 -42.5	N41•36	W97•53	+ 10.6M + 13.2M + 15.9M 2348 + 5.3M + 7.9M	
	-41.9 -41.9 -42.6 -44.3 -49.9 -46.1	N41•18	W95•07	+ 10.6M + 13.2M + 15.9M 5 + 5.3M + 7.9M	
	-46 • 1			+ 10.6M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
60000•	-49•3	N41 • 18	w95-07	5 + 13.2M	4JUNE 75
	-52.6			+ 15.9M	
	-50.3	N41 - 30	W91.54	21	
	-49.9	,,,,,,,,,		+ 5.3M	
	-55.2			+ 7.9M	
	-52•5			+ 10.6M	
	-51.9			+ 13.2M	
	-55.8			+ 15.9M	
	-49 • 6	N41 · 32	W89-00	37	
	-54-1	-		+ 5.3M	
	-53-2			+ 7.9M	
	-52-2			+ 10.6M	
	-52-1			+ 13.2M	
	-52•4			+ 15.9M	
	-52.0	N41-02	W86.19	54	
	-51.7			+ 5.3M	
	-52•3			+ 7.9M	
	-50 • 6			+ 10.6M	
	-51.7			+ 13.2M + 15.9M	
	-50 • 4		1,00.01	111	
	-50.7	N41 • 04	W83-21	+ 5.3M	
	-50.9			+ 7.9M	
	-50-5			+ 10.6M	
	-50.9			+ 13.2M	
	-51.0			+ 15.9M	
	-53-6	N.40 F.5	W80.28	127	
	-54.5	N40.55	W00.50	+ 5.3M	
	-54-2			+ 7.9M	
	-56-1			+ 10.6M	
	-58 - 5			+ 13.2M	
	-55.7			+ 15.9M	
	-60 • 4	N41-50	W77-10	147	
	-60.3	1441 • 2A	W11-10	+ 5.3M	
	-61 • 7 -68 • 1			+ 7.9M	
	-68 • 8			+ 10.6M	
	-61 • 4			+ 13.2M	
	-59.4			+ 15.9M	
	-37 • 4				

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•					6JUN 75
	62.6	N43-13	W75 • 25	1436	
	-45.6			+ 3.3M	
	-44.6			+ 6.0M	
	- 53•5			+ 8.6M	
	-45.9			+ 11.3M	
	-46.8			+ 13.9M	
	-44.5	N43.27	W75 • 40	1453	
	-51.4			+ 3.3M	
	-49.9			+ 6.0M	
	-44-1			+ 8.6M	
	-44.8			+ 11.3M	
	-46 • 1			+ 13.9M	
	-47.8	N42-43	W77-40	1511	
	-44-7			+ 3.3M	
	-44.5			+ '6.0M	
	-45.3			+ 8•6M	
	-44.9			+ 11.3M	
	-45.5			+ 13.9M	
	-46.8	N42 · 48	W80.01	1526	
	-45.3			+ 3.3M	
	-45.5			+ 6.0M	
	-46.2			+ 8 • 6M	
	-45.7			+ 11.3M	
	-45.7			+ 13.9M	
	-45.7	N42.44	W82.20	1544	
	-46.0			+ 3.3M	
	-45 •8			+ 6.0M	
	-45.2			+ 8.6M	
	-44.5			+ 11.3M	
	-44-4			+ 13.9M	
	-43.6	N42.32	W84.19	1600	
	-43-1			+ 3.3M	
	-42 • 1			+ 6.0M	
	-41.5			+ 8 · 6M	
	-40-3			+ 11.3M	
	-39 • 1			+ 13.9M	
	-38 • 2	N42-25	W86.29	1617	
	-37.5			+ 3.3M	
	-37•2			+ 6.0M	
	-36-2			+ B - 6M	
	-35•5			+ 11-3M	
	-34.7			+ 13.9M	
	-34.6	N42.08	W88 • 44	1635	
	-33•8			+ 3.3M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	-00 =	N'42.08	W88 • 44	1635	6JUN 75
	-33·7 -33·0			+ 6.0M	
	33·2 -33·0			+ 8.6M	
	-32•3			+ 11.3M	
	-31.9	ALAS C.		+ 13.9M	
	-31.5	N41-51	W90.57	1651	
	-30-2			+ 3.3M	
	-30.3			+ 6.0M	
	-30.5			+ 8 + 6M	
	-29.0			+ 11.3M	
	-26.6	N41 - 30	W00 10	+ 13.9M	
	-25.7	114136	W93.13	1707	
	-25.9			+ 3.3M	
	-24.0			+ 6.0M	
	-22.6			+ 8.6M	
	-21.8			+ 11-3M	
	-19-2	N41.26	W95.36	+ 13.9M	
	-17.2		#7J*30	1724	
	-14.0			+ 3.3M	
	-10.7			+ 6.0M + 8.6M	
	-5.3				
	-3.1			+ 11.3M + 13.9M	
₹ .	-7.6	N41.24	W98.06	1741	
ř	-11.8		#7 010 0	+ 3.3M	
	-3.6			+ 6.0M	
	-1.8			+ 8.6M	
	-10-3			+ 11.3M	
	-15.0			+ 13.9M	
	-17.8	N41 - 28	W96.05	1757	
	-20.5			+ . 3 · 3M	
	-23 •2			+ 6.0M	
	-23-8			+ 8.6M	
	-27.7			+ 11.3M	
	-25.9			+ 13.9M	
	-29 • 0	W41-33	W93.03	1814	
	-30-3			+ 3.3M	
	-30-7			+ 6.0M	
	-30.8			+ 8 • 6M	
	-32.1			+ 11.3M	
	-33-1			+ 13.9M	
	-33.9	N41.55	W89.58	1830	
	-33-9			± 3.3M	
	-34-4			+ 6.0M	
	-35.2			+ 8 • 6M	
	-36-6			+ 11.3M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
34525•	- 36•8	N41 • 55	W89.58	1830	6JUN 75
	-38.0	N42.26	W86-50	+ 13•9M 1847	
	-39 • 5	1442.50	#66•JE	+ 3.3M	
	-42.8			+ 6.0M	
	-43.6			+ 8.6M	
	-44.5			+ 11.3M	
	-44.2			+ 13.9M	
	-45 • 1	N43.02	W83-45	1904	
	-45 • 4			+ 3.3M	
	-46.7			+ 6.0M	
	-45. 5			+ 8 • 6M	
	-45.2			+ 11.3M	
	-45-5			+ 13.9M	
	-44-6	N43.03	W80.30	1920	
	-45.0			+ 3.3M	
	-45 • 7			+ 6.0M	
	-44•3 -45•1			+ 8 · 6M	
	-43·1 -44·2			+ 11.3M + 13.9M	
	-45.0	N42.45	W77.25	1937	
	-46.2	(P - 3 - F)	W11423	+ 3.3M	
	~45·2			+ 6.0M	
	-47.5			+ 8.6M	
	-45.5			+ 11.3M	
	-46 • 4			+ 13.9M	
FREQUENCY	AMPL I TUDE	LATITUDE	LONGI TUDE	ŽULU-TIM E	DATE
36060•					6JUN 75
4,0000	-20.0	N43-13	W75.25	1437	
	-45.7			+ 4.0M	
	-24.9			+ 6.6M	
	-24-8			+ 9 - 3M	
	-47.6			+ 11.9M	
	-28 • 4			+ 14.6M	
	-24-9	N43-27	W75.40	1454	
	-35.9			+ 4.0M	
	-30-2			+ 6.6M + 9.3M	
	-29 · 7			+ 9.3M + 11.9M	
	-31.0 -33.8			+ 14.6M	
	-33+6			4. 14.0M	

FREQUENCY	AMPLITUDE	LATI TUDE	LONGITUDE	ZULU-TIME	DATE
36000•		N42 • 43	W77 • 40		6JUN 75
	-37-1	N42-43	W77 • 40	1512	
	-38 - 7			+ 4.0M	
	-40 · A			+ 6.6M + 9.3M	
	-40-5			+ 9.3M + 11.9M	
	-41-0			+ 14.6M	
	-41-8		W80.01	1527	
	-42-2	N42-48	MOD • DI	+ 4.0M	
	-43-0			+ 6.6M	
	-43-3			+ 9.3M	
	-44.4 -44.7			+ 11.9M	
	-44• <i>1</i> -45•2			+ 14.6M	
	-45·2	N42.44	W82.20	1545	
	-45-8	1146044	#0E+C5	+ 4.0M	
	-46.2			+ 6.6M	
	-46-1			+ 9.3M	
	-47 • 1			+ 11.9M	
	-47·A			+ 14-6M	
	-48 • 1	N42.32	W8 4 - 19	1601	
	-48 • 6			+ 4.0M	
	-49-3			+ 6.6M	
	-50.0			+ 9.3M	
	-50-7			+ 11.9M	
	-51.5			+ 14.6M	
	-52-5	N42.25	W86-29	1618	
	-53-2			+ 4.0M	
	-54.4			+ 6.6M	
	-55-1			+ 9-3M	
	-55+8			+ 11.9M	
	-56 • 6			+ 14.6M	
	-58 • 2	N42.08	W88 • 44	1636	
	-58 • 7			+ 4.0M	
	-59•2			+ 6.6M	
	-59 • 2			+ 9.3M	
	-59 • 4			+ 11.9M	
	-59 • 2			+ 14.6M	
	-60-3	N41-51	W90.57	1652	
	-60-3			+ 4.0M	
	-60-3			+ 6.6M	
	-59-9			+ 9.3M	
	-59 • 1			+ 11.9M	
	-59 - 7	MA1 60	WO 2 . 2	+ 14.6M	
	-59 - 4	N41 • 30	W93-13	1708 + 4.0m	
	-59-2				
	-58 - 9			+ 6.6M	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGI TUDE,	ZULU-TIME	DATE
36000•	-58+8	N41 • 30	W93-13	1708 + 9.3M	6J WN 75
	-58 • 6			+ 11-9M	
	-58 • 7			+ 14.6M	
	-58 • 6	N41.26	W95-36	1725	
	-58 - 7			+ 4.0M	
	-58 • 1			+ 6.6M	
	-58 • 2			+ 9.3M	
	-58 - 1			+ 11.9M + 14.6M	
	-58 • 8	N.41 O.4	U00 04	1742	
	-58 - 6	N41-24	₩98•Ø6	+ 4.0M	
	-59 - 6			+ 6.6M	
	-58 • 8			+ 9.3M	
	-58 • 8 -50 · 5			+ 11.9M	
	-58 • 5 -58 • 6			+ 14.6M	
	-58 • 2	N41 • 28	W96.05	1758	
	-58 • Z -58 • 7	1441 • 20	#70•B3	+ 4.0M	
	-58.5			+ 6.6M	
	-58 • 5			+ 9.3M	
	-59 • 2			+ 11.9M	
	-59.0			+ 14.6M	
	-59.7	N41.33	W93.03	1815	
	-59 • 4			+ 4.0M	
	-60.0			+ 6.6M	
	-59.9			+ 9.3M	
	-60-1			+ 11.9M	
	-59.9			+ 14.6M	
	-58+8			+ 4.0M	
	-57.5			+ 6.6M	
	-55.8			+ 9.3M	
	-54-7			+ 11.9M	
	-53•8			+ 14.6M	
	-52-3	N42.26	M86.10	18 48	
	-50-9			+ 4.0M	
	-50 - 4			+ 6+6M	
	-50.4			+ 9.3M	
	-50-1			+ 11.9M	
	-47 • 4 -47 • 4	N 42 - GC	NG 2. AE	+ 14.6M	
	-46.7	N43-02	W83.45	1905 + 4.8M	
	-46.8				
	-44.7			+ 6.6M + 9.3M	
	-44-1			+ 11.9M	
	-43.3			+ · 14 · 6M	
	-4343			→ . 1 4 • Obj.	

FREQUENCY	AMPL I TUDE	LATITUDE	LONGI TUDG	ZULU-TIME	DATE
36000.		N43.03	W80.30		£ 11 m 1 7 E
	-42+6	N43.03	W80.30	1921	6JUN 75
	-41-0		-32.00	+ 4.0M	
	-39 • 0			+ 6.6M	
	-39 • 2			+ 9.3M	
	-37.3			+ 11.9M	
	-38 - 1			+ 14.6M	
	-35.0	N42.45	N77.25	1938	
	- 32.2		•	+ 4.0M	
	-73.8			+ 6+6M	
	-69.5			+ 9 · 3M	
	-71.8			+ 11.9M	
	-71.4			+ 14.6M	
FREQUENCY	AMPLI TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•					
	-62.5	N43.13	MTE OF		6J UN 75
	-65.2		W75.25	1437	
	-71.5			+ 4.6M	
	-73.4			+ 7.3M	
	-64.1			+ 9.9M	
	-65.2			+ 12.6M	
	-65.3	N43.27	W75.40	+ 15.2M	
	7 68 • 8		# / J + 40	1454	
	-67.4			+ 4.6M	
	-65.0			+ 7.3M	
	-72.2			+ 9.9M	
	-69 • 0			+ 12.6M	
	-67.2	N42.43	W77.40	+ 15.2M	
	-64.4			1512	
	-67.1			+ 4.6M	
	-70.1			+ 7.3M + 9.9M	
	-65.4			+ 9.9M + 12.6M	
	-72.4				
	-73.0	N42.48	W80.01	+ 15.2M	
	-70-8		#001 D1	1527 + 4.6M	
	-71.7			44 017	
	-64.7			+ 7.3M + 9.9M	
	-66.0			+ 12.6M	
	-66.0			+ 15.2M	
	-64.0	N42.44	W82.20	1545	

FREQUENCY	AMPLI TUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•	-62•2 -62•3 -62•6	N42•44	W82•20	1545 + 4.6M + 7.3M + 9.9M	6JUN 75
	-61 • 2 -59 • 6			+ 12.6M + 15.2M	
	-57 • 9 -57 • 4 -57 • 4	N42.32	W8 4 • 19	1601 + 4.6M + 7.3M	
	-57•0 -56•0 -55•0			+ 9.9M + 12.6M + 15.2M	
	-55 • 2 -5 4 • 3 -5 3 • 6 -5 2 • 9	N42•25	W86•29	1618 + 4.6M + 7.3M + 9.9M	
	-52-7 -51-8 -50-6 -50-6	N42•08	W88 • 44	+ 12.6M + 15.2M 1636 + 4.6M	
	-50 • 4 -49 • 9 -50 • 1 -49 • 0			+ 7.3M + 9.9M + 12.60 + 15.2M	
	-48 • 7 -48 • 2 -48 • 3 -47 • 8 -47 • 3	N41-51	₩9Ø•57	1652 + 4.6M + 7.3M + 9.9M + 12.6M	
	-47-8 -47-3 -46-5 -46-1 -46-7 -46-2	N41 • 30	W93-13	+ 15.2M 1708 + 4.6M + 7.3M + 9.9M + 12.6M	
	-46-0 -46-3 -45-9 -46-1 -46-1	N41•26	₩95•36	+ 15.2M 1725 + 4.6M + 7.3M + 9.9M	
	-46-1 -48-8 -51-4 -48-9 -46-5 -46-3	N41•24	W98 • 06	+ 12.6M + 15.2M 1742 + 4.6M + 7.3M + 9.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
37225•		N41-24	₩98•Ø6	1742	6JUN 75
	-45 • 4			+ 12.6M	
	-45-2			+ 15.2M	
	-46-2	N41 • 28	₩96•05	1758	
	-46.0			+ 4.6M	
	-46-5			+ 7.3M	
	-46-1			+ 9.90	
	-47 • 1			+ 12-6M	
	-47 · 1	N 44 00	1100 00	+ 15.2M	
	-47•8 -47•7	N41 • 33	W93-03	1815	
	-47 • 8			+ 4.6M	
	-48 • 3			+ 7.3M	
	-48 • 6			+ 9.9M	
	-49 • 3			+ 12.6M + 15.2M	
	-50 - 4	N41.55	W89.58	1831	
	-50.1	1441433	W07+30	+ 4.6M	
	-52•1			+ 7.3M	
	-52-4			+ 9.9M	
	-52.0			+ 12.6M	
	-54-2			+ 15.2M	
	-55-1	N42-26	₩86•50	1848	
	-56-5		40000	+ 4.6M	
	-58 • 9			+ 7.3M	
	-59.0			+ 9.9M	
	-61-0			+ 12.6M	
	-61-2			+ 15.2M	
	-62-7	N43.02	W83-45	1905	
	-63-6			+ 4.6M	
	-67.5			+ 7.3M	
	-70-2			+ 9.9M	
	-67 • 6			+ 12.6M	
	-68 • 0			+ 15.2M	
	-68 • 7	N43.Ø3	W80.30	1921	
	-63.6			+ 4.6M	
	-67.9			+ 7.3M	
	-62-2			+ 9.9M	
	-65 • 4			+ 12.6M	
	-65.0			+ 15.2M	
	-65•3	N42 - 45	W77-25	1938	
	-62.8			+ 4.6M	
	-65 • 4			+ 7.3M	
	-62.4			+ 9.9M	
	-62•2			+ 12.6M	
	-62•3			+ 15.2M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZUL U∸TIME	DATE
60000.		N43•13	W75•25		6JUN 75
	-58 - 5	N43.13	W75 • 25	1438	
	-64.9			+ 5.3M	
	-66-4			+ 7.9M	
	-60.5			+ 10.6M	
	-59 • 4			+ 13.2M	
	-63-6			+ 15.9M	
	-61-0	N43.27	₩75~40	1455	
	-68 • 7			+ 5.3M	
	-65-6			+ 7.9M	
	-57 • 8			+ 10.6M	
	-62•6			+ 13.2M	
	-59•6			+ 15.9M	
	-60-3	N42 • 43	W77-40	1513	
	-60-5			+ 5.3M	
	-60-6			+ 7.9M	
	-55-6			+ 10.6M	
	-57 • 1			+ 13.2M	
	-55 • 1			+ 15.9M	
	-54 - 8	N42-48	W80.01	1528	
	-53-3			+ 5.3M	
	-57-2			+ 7.9M	
	-52-6			+ 10.6M	
	-55-1			+ 13.2M	
	-53·1	N42.44		+ 15.9M	
	-53•7 -52•7	N42•44	M82.20	1546	
	-52• <i>1</i> -58•0			+ 5+3M	
	-58 • Ø			+ 7.9M	
	-55 • £			+ 10.6M	
	~53•4			+ 13.2M	
	-54-1	N42.32	W8 4 • 19	+ 15.9M	
	-53-3	1445135	WO 4 + 17	1602 + 5.3M	
	-52.7			+ 7.9M	
	-52.7			+ 10.6M	
	-54-3			+ 13.2M	
	-52.4			+ 15.9M	
	-52-4	N42+25	W86.29	1619	
	-56.0		#001E7	+ 5.3M	
	-52-3			+ 7.9M	
	-54-4			+ 10.6M	
	-52-1			+ 13.2M	
	-51.7			+ 15.9M	
	-58-7	N42.08	W88 - 44	1637	
	-52-5		######################################	+ 5.3M	
	-54-2			+ 7.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
60000•	-54•2 -54•9	N42.08	W88•44	1637 + 10.6M + 13.2M	6JUN 75
	-55 • 4			+ 15.9M	
	-59.9	N41.51	W90.57	1653	
	-56•9			+ 5.3M	
	-55•0			+ 7.9M	
	-50.8			+ 10.6M	
	-50-6			+ 13.2M	
	-48 • 2			+ 15.9M	
	-46•6	N41.32	W93-13	1709	
	-46 • 4			+ 5.3M	
	-44.8			+ 7.9M	
	-46+1			+ 10 · 6M	
	-43-6			+ 13.2M	
	-49 • 1	****	MOE O	+ 15•9M 1726	
	-43.7	N41 • 26	₩95•3€	+ 5.3M	
	-40.4			+ 7.9M	
	-39 • 0	•		+ 10.6M	
	-41.6			+ 13.2M	
	-36.7			+ 15.9M	
	-39 • 3	N41.24	W98 • 06	1743	
	-56•8 -43•1	141164	W/0400	+ 5.3M	
	-37 • 1			+ 7.9M	
	-38 • 4			+ 10.6M	
	-43 • 1			+ 13.2M	
	-42.9			+ 15.9M	
	-42.9	N41.28	W96.05	1759	
	-42.6			+ 5+3M	
	-44.7			+ 7.9M	
	-52-1			+ 10.6M	
	-46.2			+ 13.2M	
	-50.7			+ 15.9M	
	-56 • 1	N41.33	W93.63	1816	
	-53.9			+ 5.3M	
	-53-2			+ 7.9M	
	-52-6			+ 10.6M	
	-54.0			+ 13.2M	
	-53•6			+ 15.9M	
	-53-7	N41+55	W89.58	1832	
	-56.2			+ 5.3M	
	-51.9			+ 7.9M	
	-55-0			+ 10 · 6M	
	-56+8			+ 13.2M	
	-56•9			+ 15.9M	

FREQUENCY	AMPLITUDE	LATITUDE	LONGITUDE	ZULU-TIME	DATE
60୧୬ଡ∙		N42.26	₩86•50		6JUN 75
800000	-51.2	N42.26	W86.50	1849	
	-52.0	, . = .	-	+ 5.3M	
	-57.0			+ 7.9M	
	-54.7			+ 10.6M	
	-51.8			+ 33.2M	
	~55•4			+ 15.9M	
	-57.2	N43.02	W83 - 45	1906	
	-56.0			+ 5.3M	
	-54.1			+ 7.9M	
	-56.2			+ 10.6M	
	-54-1			+ 13.2M	
	-53.5			+ 15.9M	
	-54-1	N43.23	W80.30	1922	
	-54.0			+ 5.3M	
	-58 • 1			+ 7.9M	
	-60.6			+ 10.6M	
	-56.4			+ 13.2M	
	-61.3			+ 15.9M	
	-57·8	N42.45	W77.25	1939	
	-62-1			+ 5.3M	
	-61.8			+ 7.9M	
	-60 • 4			+ 10.6M	
	-66.2			+ 13.2M	
	-65.7			+ 15.9N	

SOUS GOVERNMENT PRINTING OFFICE 1977-714-025 161

METRIC SYSTEM

	ITS:

BASE UNITS:			
Quantity_	Unit	SI Symbol	Formula
length	metre	m	111
mass	kilogram	kg	***
time	second	5	
electric current	ampere	Ā	**
thermodynamic temperature	kelvin	K	
amount of substance	mole	mol	
luminous intensity	candela	cd	***
SUPPLEMENTARY UNITS:			
plane angle	radian	rad	
solid angle	steradian	57	***
DERIVED UNITS:			
Acceleration	metre per second squared	***	m/s
activity (of a radioactive source)	disintegration per second		(disintegration)/s
angular acceleration	radian per second squared		rad/s
angular velocity	radian per second		rad/s
area	square metre		m
density	kilogram per cubic metre		kg/m
electric capacitance	farad	F	A·s∕V
electrical conductance	siemens	S	AN
electric field strength	volt per metre		V/m
electric inductance	henry	Н	V-s/A
electric potential difference	volt	V	W/A
electric resistance	ohm		V/A
electromotive force	volt	v	W/A
energy	joule	1	N∙m
entropy	joule per kelvin		J/K
force	newton	N	kg·m/s
frequency	hertz	Hz	(cycle)/s
illuminance	lux	lx	lm/m
luminance	candela per square metre		cd/m
luminous flux	lumen	lm	cd-sr
magnetic field strength	ampere per metre		A/m
magnetic flux	weber	Wb	V·s
magnetic flux density	tesla	T	Wb/m
magnetomotive force	ampere	A	44
power	wait	W'	J/s
pressure	pascal	Pa	N/m
quantity of electricity	coulomb	C	A-s
quantity of heat	joule	1	N-m
radiant intensity	watt per steradian		Wist
specific heat	joule per kilogram-kelvin		j kg-k
stress	pascal	Pa	N·m
thermal conductivity	watt per metre-kelvin		W m·k
velocity	metre per second		m/s
viscosity, dynamic	pascal-second		Pa-s
viscosity, kinematic	square metre per second		m·s
voltage	volt	V	W A
volume	cubic metre		m
			(wave) m
wavenumber	reciprocal metre		44.00.00

SI PREFIXES:

Multiplication Factors	Prefix	SI Symbol
1 000 000 000 000 1012	ter a	T
1 000 000 000 - 10*	gige	ι,
1 000 000 = 10*	mega	М
1 000 : 10 ³	kilo	k
100 102	hecto*	h
10 - 104	deka*	da
0.1 10 1	dect*	đ
0.01 10 2	(enti*	•
0.001 10 3	milli	m
0.000.001 10 *	micro	μ
0 000 000 001 10 *	neno	n
0 000 000 000 001 - 10 - 12	pico	b
0 000 000 000 001 10 14	lemto	ì
0 000 000 000 000 001 10 16	ntto	•

^{*} To be avoided where possible

MISSION of Rome Air Development Center

KARCARCARCARCARCARCA

RADC plans and conducts research, exploratory and advanced development programs in command, control, and communications (C^3) activities, and in the C^3 areas of information sciences and intelligence. The principal technical mission areas are communications, electromagnetic guidance and control, surveillance of ground and aerospace objects, intelligence data collection and handling, information system technology, ionospheric propagation, solid state sciences, microwave physics and electronic reliability, maintainability and compatibility.

LA HARA DA HADAA BABABABABABA



KASCASCASCASCASCASCASCASCASCASCASCASCA